HANDBOOK OF

Social Psychology

VOLUME II

SPECIAL FIELDS AND APPLICATIONS

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ADDISON-WESLEY PUBLISHING COMPANY, INC.
READING, MASSACHUSETTS, U.S.A.
LONDON, ENGLAND

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PREFACE

The accelerating expansion of social psychology in the past two decades has led to an acute need for a source book more advanced than the ordinary textbook in the field but yet more focused than scattered periodical literature. Murchison's *Handbook of Social Psychology* (1935), the only previous attempt to meet this need, is out of date and out of print. It was this state of affairs that led us to assemble a book that would represent the major areas of social psychology at a level of difficulty appropriate for graduate students. In addition to serving the needs of graduate instruction, we anticipate that the volumes will be useful in advanced undergraduate courses and as a reference book for professional psychologists.

We first considered the possibility of preparing a *Handbook* three years ago. However, a final decision to proceed with the plan was not reached until the fall of 1951. During the interval we arranged an outline of topics that represented our convictions concerning the present state of social psychology We then wrote to a large number of distinguished social psychologists asking them whether they felt our venture was likely to be professionally valuable and asking for criticisms of the outline we had prepared. The response to these letters was immensely gratifying — social psychologists as a group appear sufficiently altruistic to spend large amounts of time criticizing and commenting on a project of which they approve even though they may be unable to participate in it themselves. We also asked for specific recommendations of people who seemed best qualified to prepare the various chapters. After receiving answers we drastically revised our outline and proceeded to invite authors to prepare the various chapters. It was not until the spring of 1952 that we completed our list of contributors and even this list later underwent change. We first suggested (tongue in cheek) that the manuscripts be submitted by September 15, 1952. However, as we secretly expected, we were forced to change this due date to January 1, 1953. This "deadline" we tried hard to meet. But of course we failed and shifted our aspiration to June 15, 1953. Again we failed, although by now we were making substantial progress. By early in the fall of 1953 we had all the chapters excepting two, and the first volume was completed and in the hands of the publishers. The last two chapters were not received until early in 1954, when the second volume went to press.

Something should be said concerning the basis for the organization of the subject matter of these volumes It became apparent early that there are many ways to subdivide social psychology but very little agreement concerning just which is best. Although we sought the advice of others, we found for almost every compelling suggestion an equally compelling countersuggestion. Thus, in the end, it was necessary to make many arbitrary decisions. So much for our knowledge that the *Handbook* could have been organized in many different ways. There is no single scheme that would satisfy all readers.

We early discovered that the subject matter was too voluminous to be contained in a single volume. Given this decision it seemed quite natural to present in one volume the chapters that dealt primarily with theoretical convictions or systematic positions, and also the methods and procedures commonly employed in social psychology. Likewise it seemed wise to present in one volume those chapters that focus upon the substantive findings and applications of social psychology.

The decision to place the historical introduction, theory, and method chapters in the first volume reflects a bias in favor of investigation that begins with an awareness of the message of the past, an attempt at theoretical relevance, and finally with a full knowledge of the procedural or measurement alternatives All of the content of the first volume is seen, at least by the editor, as a necessary preparation for good investigation. These are the things the social psychologist should know before he lifts a single empirical finger. The second volume, then, can be seen as a justification of the contents of the first volume. Here are the empirical fruits stemming from the theories and methods summarized in the first volume.

But does this ideal scheme mirror common practice? Are the major empirical advances summarized in the second volume in reality a legitimate by-product of theoretical conceptions and sophisticated method? In fairness to science in action (as opposed to science on the books) we are afraid the answer is No Social psychology has made its advances largely on the shoulders of random empiricists and naive realists. Inability to distinguish between analytic and synthetic and a tendency toward reification of concepts has accompanied many of the most significant advances in this field. Who would say that those who view an attitude as a "construct" created by the investigator have made more of a contribution to this area of psychology than those who naïvely view attitudes as real and concrete entities? Thus we sorrowfully admit the organization we have imposed upon the *Handbook* may bear little relation to the path thus far trod in the development of social psychology. Nevertheless, it stands as a suggestion of the manner in which future development may well take place and as a reminder that the powerful weapon of systematic theory is now more nearly within the grasp of the wise psychologist than formerly. Where yesterday the theoretically oriented investigator and the random realist may have been on even terms, recent developments within the field may well have destroyed this equality. An approach efficient in the wilderness may be foolish in a more carefully mapped region In summary, the precedence we give to theoretical positions reflects our conviction of the importance of theories as spurs to research, but may also represent a program for the future rather than a reflection of the past.

It must be conceded that not all areas of social psychology are covered in these volumes with equal thoroughness. Some gaps are due to the blind spots of the editor while others are the result of contributors failing to cover an area they originally agreed to cover and, in a few cases, to contributors who withdrew altogether. In spite of these shortcomings, the volumes in their present state provide the most comprehensive picture of social psychology that exists in one place today

While deficiencies of the final product are my own responsibility, they exist in spite of a number of advisors who gave their time and energy generously throughout the venture. Of these collaborators none was nearly so important as Gordon Allport. In fairness he should be co-editor of the volume, as he contributed immeasurably both in matters of policy and in matters of detail. I owe a very special debt of gratitude to my wife Andrea for her tolerance, encouragement, and detailed assistance. Likewise of great importance is the contribution of Shirley H Heinemann, who has been of constant help throughout the editorial process and in preparing the Index. Crucial to the success of this work were various additional colleagues who served as referees, reading individual chapters and suggesting changes and deletions. On this score I express my gratitude to Raymond Bauer, Anthony Davids, Edward E. Jones, Kaspar Naegele, David Schneider, and Walter Weiss. In addition, many of the contributors served as referees for chapters other than their own. I am indebted to E. G. Boring, S. S. Stevens, and Geraldine Stone for many helpful suggestions based on their experience in arranging the *Handbook of Experimental Psychology*. Mrs. Olga Crawford of Addison-Wesley played an indispensable role in final preparation of the manuscripts.

We wish to thank the following publishers for permission to reproduce tables,

figures, and excerpts used in these volumes: Addison-Wesley Publishing Company for R. F. Bales, *Interaction Process Analysis;* Annual Reviews, Inc. for C. P. Stone and D. W. Taylor (Eds), *Annual Review of Psychology;* Appleton-Century-Crofts for E. R. Hilgard, *Theories of Learning;* Beacon House for L. S. Cottrell and Ruth Gallagher, *Developments in Social Psychology;* Ernest Benn, Ltd., London, for G. LeBon, *The Crowd;* Cambridge University Press for W. McDougall, *The Group Mind;* Carnegie Press for H. S. Guetzkow (Ed.), *Groups, Leadership and Men;* Clark University Press for C. Murchison (Ed.), *Handbook of Social Psychology;* Columbia University Press for D. Bidney, *Theoretical Anthropology;* Doubleday & Co. for M. Cowley and B. Smith (Eds.), *Books That Changed Our Minds;* The Dryden Press and Helen Service for Marie Jahoda, M. Deutsch, and S. W. Cook, *Research Methods in Social Psychology;* The Dryden Press and Alfred McC. Lee for A. McC. Lee and N. D. Humphrey, *Race Riot;* Follett Publishing Co for H. Werner, *Comparative Psychology of Mental Development;* Free Press for R. K. Merton, *Social Theory and Social Structure;* T. Parsons, R. F. Bales, and E. A. Shils, *Working Papers in the Theory of Action;* and Martha Wolfenstein and N. Leites, *Movies: A Psychological Study;* Grune and Stratton, Inc. for P. H. Hoch and J. Zubin (Eds.), *Psychosexual Development in Health and Disease;* Harcourt, Brace & Co. for C. Fries, *The Structure of English* and K. Koffka, *Principles of Gestalt Psychology;* Harper and Bros. for. N. W. Ackerman and Marie Jahoda, *Anti-Semitism and Emotional Disorder;* T. W. Adorno *et al., The Authoritarian Personality;* R. G. Barker and H. F. Wright, *One Boy's Day;* B. Bettelheim and M. Janowitz, *Dynamics of Prejudice;* H. Cantril and G. W. Allport, *The Psychology of Radio;* C. S. Ford and F. A. Beach, *Patterns of Sexual Behavior;* E. R. Guthrie, *The Psychology of Learning;* P. F. Lazarsfeld and F. N. Stanton (Eds.), *Communications Research, 1948-49;* J. Lee (Ed.), *The Language of Wisdom and Folly;* K. Lewin, *Resolving Social Conflicts;* K. Lewin, *Field Theory in Social Science;* R. K. Meron, *Mass Persuasion;* G. Murphy, *Personality;* J. H. Rohrer and M. Sherif, *Social Psychology at the Crossroads;* Harvard University Press for T. Parsons and E. A. Shils (Eds.), *Toward a General Theory of Action* and F. Roethlisberger and W. J. Dickson, *Management and the Worker;* Hogarth Press for S. Freud, *Group Psychology and the Analysis of the Ego* and *The Collected Papers of Sigmund Freud;* Henry Holt & Co., Inc. for G. W. Allport, *Personality;* T. Newcomb and E. L. Hartley, *Readings in Social Psychology;* R. S. Woodworth, *Experimental Psychology;* and L. L. Whyte, *The Next Development in Man;* Houghton Mifflin Co. for F. H. Allport, *Social Psychology* and C. R. Rogers, *Client-Centered Therapy,* International Universities Press for G. Róheim, *Psychoanalysis and Anthropology* and G. B. Wilbur and W. Muensterberger (Eds.), *Psychoanalysis and Culture;* Alfred A. Knopf, Inc. for C. Kluckhohn and H. A. Murray (Eds.), *Personality in Nature, Society, and Culture;* H. D. Lasswell, *Propaganda Technique in the World War;* H. D. Lasswell and Dorothy Blumenstock, *World Revolutionary Propaganda;* and W. F. White, *Rope and Faggot;* Liveright Publishing Co. for W. Kohler, *Gestalt Psychology;* McGraw-Hill Book Co. for H. G. Barnett, *Innovation: The Basis of Cultural Change;* D. Krech and R. S. Crutchfield, *Theory and Problems of Social Psychology;* K. Lewin, *Principles of Topological Psychology;* and M. L. Reymert (Ed.), *Feelings and Emotions;* The Macmillan Co. for H. Blumer and P. M. Hauser, *Movies, Delinquency, and Crime;* W. Lippmann, *Public Opinion;* R. W. Sellars, V. J. McFill, and M. Farber (Eds.), *Philosophy for the Future;* and F. K. Shuttleworth and M. A. May, *The Social Conduct and Attitudes of Movie Fans;* Methuen & Co., Ltd. for W. McDougall, *Introduction to Social Psychology* and W. McDougall, *Psychoanalysis and Social Psychology;* Noble and Noble, Inc. for W. D. Scott, *Psychology of Public Speaking;* W. W. Norton & Co. for E. H. Erikson, *Childhood and Society;* J. Piaget, *Play, Dreams, and Imitation in Childhood;* and J. Ruesch and G. Bateson, *Communication: The Social Matrix of Psychiatry;* Oliver and Boyd Ltd., Edinburgh, and Sir

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G. L.

April 1954

Part 4

The Individual in a Social Context

CHAPTER 16

Social Motivation

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We shall attempt here a theory of the "raw material" of human nature: its primitive mainsprings of social action and social awareness, the elaboration of which under social influences gives the social individual.

It is almost impossible to avoid the distinction between motives and means, between forces and mechanisms, between drives and the skills which serve them. Even if (as we shall see) doubts are often raised today as to the legitimacy of such a distinction, we shall need, in deference to the many who have struggled with the problem, to consider systematically some of the conceptions of drive, motive, value, or goal-seeking which have dominated modern thinking about motives in the social scene.

The problem could fairly be reduced to a simple form by asking what it is within us that disposes towards social action, in contradistinction to what it is that determines the kind of action we take. Even if an engine is perfectly constructed and ready to go, there must be an *energy source,* and this must be turned to account, as by lighting a fire or throwing a switch. Let there be energy, then work can be done. Our psychological theories assume for the most part that although the organism consists largely of devices for adjusting to the environment (utilizing centers for the reception, the integration and the distribution of energies), there is always room for discussion of the question: what makes the thing work? Attention will first be given to the *biological sources* of motivation; thereafter we shall attempt to show the ways in which these energies are elaborated and *developed into social motives.*

HISTORICAL CONTEXT OF THE PROBLEM

It is worth-while to take a brief glance at what the philosophers of the West have had to say about motives. Most of those who have been explicit have espoused one form or another of the pleasure-pain theory. In the dialogue of the *Gorgias,* Socrates stoutly defends the view that a man would be a fool to seek physical comfort, wealth, and power, knowing that he was pursuing a base and therefore *unsatisfying* form of conduct in achieving such goals. He would not really be happy, he would not achieve real pleasure (In many contexts these terms are not interchangeable, but here the only point seems to be the emphasis upon pleasantness, "positive hedonic tone.") On the other hand, a man who underwent deprivation, sorrow, and physical torture in the pursuit of what he felt to be noble would be happy. When goaded to come down to earth and talk sense, Socrates replied that he was not talking cryptically or symbolically; he meant in plain everyday language that there were only two things to be considered: pleasure and pain. Man pursues pleasure insofar as he can. But man is such a creature as can be happy only when pursuing virtue. The moralists have made much more of this thesis than have the psychologists. But Socrates really means that no one ever does anything except in pursuit of pleasure and in avoidance of pain, and that those noble men who eschew comforts and glory for the sake of an ideal are not, in point of fact, repudiating pleasure but simply pursuing the best pleasure there is.

At a somewhat more pedestrian level, Epicurus argued simply that in this vale of tears man can make the best of things simply by achieving pleasure or happiness when he can, and by avoiding pain or misery when he can. Epicurus stressed the fact that there is much more pleasure in simplicity of life and self-control of spirit than in gluttony or extravagance of any sort. Real pleasure is a simple thing, but it must be pursued with full recognition that any wildness or excess is likely to bring on more than counterbalancing pain. The high-minded Stoics, unable to satisfy themselves as to the ideal value of pleasure, succeeded through the centuries in convincing mankind that Epicurus was a gluttonous man and a winebibber.

When the modern era of social thinking be-

gins, we find in Thomas More (1518) an extraordinarily simple and honest pleasure-pain theory, essentially like that of Epicurus, and later an explicit espousal by Machiavelli (1523) of a fundamentally different conception of human motives. I do not mean to imply that either More or Machiavelli fully understood the philosophical implications of the theory of human motivation which they presented. But we have had, since the time of these two men, the essential working materials out of which to construct two utterly different conceptions of what drives man to social action.

Thomas More, passionate devotee of justice and humanity, believes that the techniques by which to control human behavior consist in attaching rewards to that which is socially desirable and punishment to that which is socially undesirable. One of the great sources of human turpitude, for example, is gold. Very well, then, let us use gold in all the base and degrading ways we can: e.g., vessels to contain waste and excreta should be made of gold. The acts of pride and arrogance which at present bring social admiration should bring only scorn and derision. Men will behave well if you reward them. And this, be it noted, is not a cynic, but one of the passionate humanitarians of an age of rapidly increasing moral intensity.

Machiavelli proceeds in a different spirit. The two great motives, he says, upon which the Prince can rely in the control of his people, are fear and love. Both motives should be used. In the long run, however, fear, said he, is more dependable than love. The important thing to note is that Machiavelli, instead of saying that men *rationally anticipate* the results of opposing the Prince, thinks in terms of impulse. Instead of saying that the people will calculate that things will turn out favorably to themselves if they do what the Prince desires, he says simply that under certain conditions they will do what they must do because they love the Prince. Hedonism is therefore fairly effectively bypassed, and we have the attempt to find in human nature specific and predictable *impulsive mainsprings of action.*

These two modes of thinking are equally clearly apparent in the following century. Descartes (1650), for example, clearly intended in his study of the "passions" to give each passion a respectable place in his psychology by regarding it as a form of anticipation of good or bad results while, on the contrary, Thomas Hobbes (1650) in *Leviathan* is equally explicit in defining human behavior in terms of a few powerful impulses. As Wordsworth said a century and a half later, society depends upon a "few strong instincts and a few plain rules."

For Hobbes, fear, rage, and sex are presented (as they have been before and since) as relatively simple, deeply ingrained organic drives, with fear by far the most important. But in addition we find heavy emphasis upon a type of motivation to which the term "glory" is applied, which is simply the prestige motive of modern social theory. Even humor is explained as the "sudden glory" by which we "suddenly applaud ourselves" when we see the fat slob slip on a banana peel; our joy is due to the enormous heightening of our prestige relative to the object of our jealous dislike. It would be too wide a digression to describe here the social context within which Hobbes spun these theories; but certainly fear and glory were two very obvious motives in the economic-political convulsion of Seventeenth Century England, in which Hobbes himself was a frightened participant.

Spinoza (1677), a few years later, saw far more deeply than Hobbes into the tissue of human drives. He emphasized the impulsive life in relation to higher processes, and saw the unity of body and mind. He was, in fact, so profound that he made but little mark upon the social theorists of the era.

Following upon the dramatic achievements of the Commercial Revolution and the rise of a reading and thinking middle class, the stage was set for the sweet reasonableness of John Locke (1690), and the belief that man could use his God-given powers of reflection to create a social order based upon education, freedom, and democracy. For Locke, however, there was not only reflection, but also a simpler and cruder process of mental functioning, the "association of ideas" or, we might say, thinking by sheer habit. The influence of the new science of mechanics probably assisted in the development of an associationistic (and at times mechanistic) interpretation of human nature, and another new science, political economy, powerfully abetted the trend, for men apparently worked, invested, bought, and sold in terms of the balance of pleasures and pains *associated with each such activity.* Economics and psychology grew together. Adam Smith (1793), analyst of the *Wealth of Nations,* was also the analyst of the moral life in terms essentially based upon the psychological principle of association. The Industrial Revolution, beginning in the mid-eighteenth century, enhanced these associationistic and hedonistic tendencies, the late eighteenth and early nineteenth centuries emphasizing the pursuit of pleasure and the avoidance of pain. Jeremy

Bentham's (1789) "felicific calculus," concerned with the ways of enlarging the preponderance of pleasantness over unpleasantness (and the "sum total of human happiness"), was the most explicit formulation of a "utilitarian" outlook. Coexisting with it and violently reacting upon it stood romanticism and transcendentalism, Carlyle (1836) thundered against the "profit and loss philosophy" and found in life "an everlasting yea."

There is nothing more of great importance to say, historically speaking, until the age of Darwin (1859). The evolutionary theory squarely forced upon all, even upon the reluctant associationists, the prime necessity of understanding the mainsprings of action of animal and man. It was because of these mainsprings, developed in high degree, that some organisms had acted in such a way as to survive, lacking the right motives or insufficiently intense motives, they could not have survived to the period of reproduction. Moreover, evolutionary theory made necessary a dynamic conception of adjustment to the environment, in which living tissue was going to meet the environment, not merely at special moments, but continuously, carrying out activity which in psychological terms would be called effort, or striving, or conation. Darwinism paved the way to recognition of ingrained social impulses shared by man with other animals.

In the modern era, the influence of psychoanalysis was in the same direction: the direction of looking for impelling motivations. All this is too obvious to call for elaboration here. It may at the same time be noted that cultural anthropology — once concerned primarily with descriptions of differences in social behavior in different contexts — has led many to the view that it is because the deep motives of mankind have been guided in one rather than another direction in each culture that the cultural values or basic orientations differ. The values differ not merely through historical accidents or the accretion of different traditions, but because through historical processes the basic human stuff has come to *want* and to *pursue* different things.

As far as social psychology proper is concerned — which came into existence at the end of the last century and the beginning of the present century — it was first of all William McDougall (1908) who vigorously shifted the center of emphasis to the instincts. These he viewed as the inherited predispositions to perceive, feel, and strive in specific ways. This was done in an essentially Darwinian spirit; it was an attempt to get away from the pleasure-pain theory, from intellectualism, and from the "association of ideas" as explanations of human behavior McDougall emphasized the mainsprings to action, but he recognized the great plasticity of the motive patterns, and found in the instincts the sources of the complex derivatives of the life of motivation, notably the will and the sentiments, and, in particular, the need for self-respect, the "self-regarding sentiment."

Under McDougall's influence, Thorndike (1913) listed nearly a hundred mainsprings of action, Woodworth (1918) over fifty. Other authors by the dozens proliferated their own lists of instincts. At the other extreme we find many of the anthropologists and sociologists of the early twentieth century attempting to reduce motives to a few simple functional units, without attempting to look at their biological roots, but still deriving social behavior from impulses within the individual. Notable here is W. I. Thomas' (1923) list of four wishes, such as the wish for new experience and the wish for security. Hedonism was in consequence simply blasted out of the water, and almost all social psychology became impulse dominated.

Then came the "anti-instinct" movement of 1919 and thereafter. In the case of Dunlap (1920), who initiated it, this was apparently motivated in large part by antipathy to the mind-body dualism which had been professed by McDougall. But it rapidly took on huge proportions because of the fact that psychologists were beginning to grow suspicious of the ease with which lists of motives could be made up. They were likewise influenced by the views of Franz Boas and the "American Historical School" of anthropology, to the effect that very different kinds of lists of "fundamental motives" would have to be drawn up for people living in different cultures The result was to produce, by the end of the decade of the twenties, a general disinclination to start social psychology with lists of instincts, or indeed with motives of any sort. In fact, the aching void which had been created in this fashion — the removal of all the sources of energy — tended to be filled, as well as it could be, with material from cultural anthropology, showing the molding of different behavior patterns in different kinds of cultures, under the impact of social pressures.

This era of anthropological thinking exerted its marked effect upon social psychology. In the same years in which Mannheim (1936) and the "sociology of knowledge" began to define a systematic conception of the relation of culture to man's ways of perceiving and thinking, such anthropologists as Malinowski (1927) and Benedict (1934) helped psychologists to see how

to construct a social psychology that began with *social experience* rather than with *social action* The new trend appeared in the work of Sherif (1936), who, under the influence of both anthropology and of Gestalt psychology, held that *perceptual patterns are molded in different ways in different cultures and different group settings.* Laboratory demonstrations of this principle were developed to drive the point home, and to suggest the possibilities of a systematic experimental social psychology based first of all upon the facts of social perception With the further spread of Gestalt influence and of field theory, as represented by Kurt Lewin (1935), a new division of social psychology came into being, consisting of the study of the "life space" of individuals in group situations, while with the advent of phenomenology (Krech and Crutchfield, 1948) social psychology undertook to describe more fully and systematically the immediate influence of the participant in a social situation. Clinical psychology, dealing intimately with such "interpersonal" problems, has naturally been profoundly affected by these developments.

All of these positions, while avoiding a frontal attack upon biological conceptions of motivation, throw the emphasis rather largely upon the cognitive-structural aspects of social interactions. The social motives are often accepted and regarded as depending on inner biological dispositions, but they are regarded as crude, essentially amorphous dispositions, the meaning of which appears only when the social context is defined. We find, therefore, in the modern theories of social behavior, two emphases: One is to the effect that everything in society must be anchored to a social motive (there must always be an *energy source*). The other is to the effect that however important the inherent motives of the individual may be, social activities are more appropriately conceived as aspects of a social situation. The former approach emphasizes the drives which guide the processes of perceiving, feeling, and acting. The latter defines these processes mainly in terms of the social contexts in which they appear.

Psychiatrists have in general espoused the former view. The orthodox Freudian continues to insist upon retaining the libido as energy source. Yet in recent years the movement led by Horney (1937), Fromm (1941), and Sullivan (1947) has emphasized more and more the social determination of personality, to a point that occasionally leaves it uncertain whether the biological determiners are taken for granted or are, on the contrary, ruled out as irrelevant.

This emphasis upon social determinants is certainly popular today. It has deep roots. A half-century ago John Dewey (1902) convinced a large following that activities, however set up, become sources of further activity. Later Woodworth (1918) devoted a volume largely to the proposition that a "mechanism may become a drive," and that there are therefore far more motives than original inherited drives. Later still, more elaborate doctrines were developed to suggest ways in which activities which began as the agencies through which motives function may in themselves ultimately become self-sustaining. Notably, we have here G. W. Allport's (1937) conception of "functional autonomy," which stipulates that meaningful purposive activities, however they may have arisen, may continue to be carried out for their own sake without requiring constant backward reference to, or reinforcement by, the original source of motivation. It is probably fair to say that this group of concepts attempts to fuse the concepts of *motives* (energies) with the concept of *mechanisms* (instruments activated by energies), with the result that the latter lose their character as mechanisms. It is also probable that few today are satisfied that an adequate solution along these lines is at hand. The biology of drives remains, at least for many, a primary fact to reckon with. Until the relation of drive to mechanism is experimentally determined, many appear to be willing to accept at a descriptive level a distinction between motives and mechanisms, looking upon motives as energy sources which keep mechanisms at work.

Stating the issue in this way, one may wonder why *either* aspect of social reality needs to be slighted. Why should not the patterns of social interaction, like "leadership" or "imitation," be conceived as expressions of an underlying motivation, impossible without the energy to which the term motivation refers, but cast in a socially defined form? Just as magnetized iron may itself become a magnet, so love, etc., may be both intrinsically determined and socially determined. Social behavior becomes a socially patterned release of inherent energies.

The Physiology of Motives

Now what are the "energies"? While a few decades ago it was regarded as appropriate simply to name the motives in terms of the objects to which they referred, e.g., to define hunger as the food-seeking motive, or thirst as the water-seeking motive, and even vanity as

the prestige-seeking motive, the strong physiological trend of recent years has prompted psychologists to try to be specific regarding the pent-up energies — usually physiological "tensions" — which are "released" when the motives are satisfied. Although the idea is an ancient one, this way of thinking may for convenience be anchored historically upon Dunlap's conception in 1923 that a desire resides in a tissue and upon Dashiell's (1928) classical reference to "tissue needs as the sources of drives." It is from such conceptions that we derive our simplest working ideas regarding the sensitization of the whole individual at every level (reflex action, perception, learning, thinking, imagination, etc.) to stimulation which is relevant to the tissue needs. The conscientious objectors who were observed for months while on a near-starvation diet at the University of Minnesota (Franklin, *et al.*, 1948) became food-centered, food-sensitive, food-preoccupied, like men in famine areas. Sexual and other endocrine tensions or needs have a similar effect (Beach, 1948).

What can now be said regarding the general physiology of needs? It would appear in the light of behavior research and the neurophysiological studies of the last three decades that a large proportion of the essential problems in motivation relate to the effects of various factors within the body, such as hormones, upon the thresholds for various types of neural integration. Just as Sherrington (1906) foresaw fifty years ago, we are coming more and more to grasp that any given behavior unit is a function of, or expresses, a very large number of concurrent events within the organism, so that there is never any single *cause* for a motive, any more than there is for anything else. Nevertheless, we may be as analytical as we like, e.g., we may conceive of the oxygen tension in the blood as a factor influencing thresholds in the medulla; we may conceive of gastric contractions as a factor influencing thresholds for salivation and swallowing (Carlson, 1916). And we may think of all drive-initiated response, such as the responses to fear, sex stimulation, etc., as C. R. Moore (1919) and K. S. Lashley (1924) suggested long ago, as specific effects upon neural centers. In this way the visceral drives, including those related to oxygen, food, water, fatigue, sex, lactation, etc., as well as escape from intense and damaging stimuli, may be thought of as involving subtle and complex changes, sometimes focused at one point, sometimes at many points within the body.

The outer factors and immediate external incentives are always to be considered concurrently with the inner factors. The watering of the mouth may indeed occur at times under extreme hunger *without* the presence of food (Carlson, 1916) and there may be neural and behavioral expressions of sex interest with no sex object present. Nevertheless, considering the life of the organism as a whole and considering the fact that it does not function in a vacuum, we may indicate broadly the interactions or field relationships between thresholds and the entire pattern of energies stimulating the organism from outside. Ultimately the distinction between inside and outside is physiologically of little importance, since what is acting upon the nerve cells at any given time is a pattern of factors traceable to remote biochemical and other changes within the body and also factors traceable to distant events, all of which, as they summate, act upon the nerve centers on equal terms. The nerve cell "does not know or care" which factors are environmental, which intraorganic.

From this point of view the learning process plays exactly the same role in the interconnecting of motives and in the attachment of motives to new types of stimuli as is found in the learning studies which are reported elsewhere in this volume. Indeed, as motives are attached to new objects, two or more motives may find themselves centered in the same object. Two or more motives may, moreover, be so attached to external objects as to result in conflict. Ultimately, then, we have, as we always have in psychology, a problem of abstracting from the on-going unity of life certain relatively isolable physiological functions and certain regions of behavioral adjustment, which as they progress may be abstracted as "the drives" and "the learning process."

This way of thinking has had the great advantage of forcing psychologists to be specific as to the organic form, quality, time-space-energy relationships of the motives about which they are speaking. It has, however, produced in the more thoughtful the need to find an equally crisp and definitive way of coping with those motives about whose physiological foundation nothing very specific is known. Recognizing the enormous social importance of many of those drives which are hard to trace to a physiological source, e.g., the will-to-power and the will-to-status, one may do one of two things:

(1) Try to round out the intended systematic physiological scheme. One may invent out of the fragmentary data a physiological basis, simple or complex, for such a drive. One may take out of comparative and genetic psychology and psychoanalysis a number of fragments of

evidence to show that this or that muscle group, this or that visceral tension in some temporal sequence, are cast, as a result of their maturation and learning, into the status of a physiological core for action. For example, the child's battle with parents over the matter of bowel control may be a very important constituent in the later development of the power drive, and the complex of libidinal responses to one's own person may develop into some of the aspects of self-love, so important in status striving. This is programmatic and speculative, but it is as legitimate as any other theory-building on the outskirts of psychology

(2) A second tendency, probably more widespread today, is the tendency to deny a physiological basis for those drives whose physiological basis is not already evident. The issue is absolutely fundamental, for if there are drives without a physiological basis, they would appear to enjoy almost unlimited flexibility. To make a sharp distinction, for example, between needs and quasi-needs (Lewin, 1935), or between biogenic and sociogenic drives (Krech and Crutchfield, 1948), the latter being simply learned through the nervous system and not dependent upon organic sources such as obtain in the biogenic drives, seems to commit us to a contrast between a stable and a very unstable group of motives. Similar to this is the distinction between "fundamental" drives and "derived" drives, or between "primary" drives and "acquired" drives, etc. Sometimes the "acquired" drives are simply the old "mechanisms" which are being made to function by the energy sources which the basic drives supply or, like fluorescent light, are capable of acting as long as an energy source continues to feed them. Or, on the contrary, they may be conceived to have no traffic with physical energy at all. But whether the adherents of the distinction between basic drives and learned drives mean to deny that the latter have a physiological basis is not always clear. If there are drives for which there is no physiological basis, they would appear to be grafted in a somewhat ethereal fashion upon the physiological activities of the organism. Moreover, the geneticist and the student of growth have demonstrated that all "inherited" functions depend upon interaction with the environment, and if there be acquired drives which express *only* the environment, and not the stuff of which the organism is made, they would, to say the least, be biological anomalies. For systematic as well as practical purposes a theory of the relation of the two groups of motives is needed.

One cannot help wondering whether there is not a confusion here which has resulted in part from the fact that the physiologically oriented psychologist is preoccupied with the regions in which the so-called primary drives are located. In particular, he has been in the habit of tracing the drives to the viscera. We have, of course, been greatly influenced by comparative experimental psychology, which is likely to choose for study those drives whose physiology is pretty well known. It is, in fact, disposed to work either with simple positive responses like food and sex, or simple avoidance responses like those associated with physical punishment, and not likely to run into the range of issues which the student of social behavior constantly confronts.

Just why all drives should be centered in the viscera and none of them in any of the other tissue systems of the body is not altogether clear. Striped muscles are centers of enormous and complex energy release; many human motives, such as those involved in children's romping, adult exercise, and sheer strenuous exultation in the use of one's powers, seem to suggest that motives are just as solidly anchored upon the need for positive activity as upon the need for surcease from visceral tension. In the same way, studies of spontaneous discharge of nerve cells (Adrian, 1937) and of activity of which the nervous system is constantly capable without requiring any energies impinging upon it at the time from outside, show clearly that the central nervous system is itself a source of tensions and of tension release. Integrated action of the striped-muscle system and the central nervous system is exemplified in a child's very excited pursuit of a goal like coasting on a snappy winter afternoon.

One might think here of the bewilderment of the modern teacher or parent who has had a little psychology. The job is to get junior to stop coasting and come in for supper. The "basic drive" of hunger will not do the job; the "secondary drive" (or derived drive) of coasting insists upon outdoing the basic drive. Or at a more complex level, one might think of the child or adult who has to hear the "mystery" or the baseball scores at bedtime and who, no matter how tired he is, no matter how deep the physiological need for sleep, has to know "how it came out" before he can relax.

In animal and child and man, deep satisfactions also come from the *senses,* all the way from the pleasantness of smell and taste, color and tone, to the socially elaborated activities which we know as the arts. Such affectivity is known to be related to brain physiology, so that it would seem to be an unnecessary tour-de-force

to plant these activities in the viscera. As Diamond (1939) long ago pointed out, the whole system of living tissues supplies energy for activity.

If one has theoretical difficulties in admitting that any part of the body but the viscera can serve as base for a drive, one course open is to suggest that the "derived" or "secondary" drives (i.e., nonvisceral drives) are instruments serving the "primary" drives, they bring nearer to us certain goals which serve the primary drives. An everyday illustration is the assumption that a child's craving for affection is really a craving for food and safety which he can obtain if affection is safeguarded. From a means-end point of view, then, we could regard all drives whose physiological basis is not well established as instrumental activities which really serve the interests of the primary biologically defined drives. It is not clear that this assumption serves any purpose except to keep the drives anchored in the viscera.

A Theory of Social Motives

However that may be, we must be ready to describe and to explain to some degree the actual range of social motives as we know them, relating them to one another, to the learning process, and to the life of the organism as a whole. Any theory of motivation with which social psychologists can be satisfied must help us to understand such complicated processes as the impulsion toward group loyalty, group hatred, prestige, power, devotion to a leader, fear of ridicule, humor, and the need for social order, morals, religions, and the arts. We must have a theory which will make such processes as these intelligible at better than a sheer descriptive level. Such a theory will be attempted here.

Looking back over the efforts which have been made since the time of Darwin to explain these omnipresent social motives, which make up so much of the world of our daily living, we find three general types of efforts to find an interpretation that will be sound for both intracultural and intercultural processes.

First, there have been what might be called the *"one-drive"* types of theory. The most conspicuous is that offered by Freud (1920), whose conception of the libido is not far from the Platonic conception of Eros — a deep and constant tide of life which may move in different channels or take different forms but which constitutes the primary source of all life's processes. Espousal of a one-drive theory seems likely to set up a certain instability in the theorist's mind — and the need to set up something else in contrast — and we encounter the *"polarities"* of most system-building efforts. Freud's libido was contrasted with an instinct of self-preservation, later it was contrasted with a "death instinct." From this point on, we may if we like say that Freud's theory of drive has become a *one-polarity* theory. And the one drive or the two drives thus standing at the point of origin are inevitably followed by a process of subdivision. Thus the drive for attainment of food would become a subdivision of the instinct of self-preservation. It is hard to see what has been gained by pulling everything together into a single drive if immediately separate parcels of the contents must be made up. It may be maintained that the interrelations of the drives are seen most easily if a general unified background is provided, but the psychological interdependence of drives as we know them and the physiological interdependence of their various bases are already presupposed in any modern conception of the unity of the organism.

Yet despite the inherent weaknesses of one-drive theories it cannot be claimed that psychoanalysis has been deficient in contriving ingenious interpretations of complex social phenomena. Starting from the dependence of the young child upon the parents, the analyst develops a reasonable way of interpreting the need for one's fellows and the devotion to a leader as a father surrogate. Starting with the fact of strong affection towards the parents, both of the same and of the opposite sex, together with the need to accept their disciplinary control — and the tendency in the long run for attraction more toward the parent of the opposite sex than the parent of the same sex — one may do a good deal with the theory of group structure, as Freud (1922) did in his *Group Psychology and the Analysis of the Ego.* Aggression, ridicule, and the release of energy are considered in Freud's (1916) *Wit and Its Relation to the Unconscious;* the power motive is brought into relation to the frustrations of primitive visceral needs, particularly the evacuation of the bowels. Religion, morals, and the arts involve the fusion of all of these patterns, together with sublimation or redirection of sexual energies. In fact, one of the appeals of psychoanalysis is the extraordinary comprehensive, ambitious, and ingenious efforts to pull the whole realm of culture into its theater of operations. It is this very tendency which has carried it beyond the status of a psychotherapeutic system.

What Freud did in his earlier years with reference to the libido, or life-giving tendency, he did in his later years with the death instinct as a tool of analytical investigation, even to the point of interpreting personal strife and international war in terms of an impulsion towards death which makes ultimate optimism impossible regarding the fate of the human family.

In opposition to the one-drive or one-polarity approaches stands what might be called the *drive catalog*. This approach names practically every observable response in great specificity, as Thorndike (1913), for example, names the response of "fleeing from the center whence others flee." The catalog-building tendency has come down to us from the early evolutionists and James (1890). It was really this cataloging, more than anything else, as we have said, that led to the "anti-instinct movement." Even when a long catalog is provided, each drive can be subdivided almost indefinitely, as salivating, swallowing, and digesting may be set up as parts of the food-seeking pattern. One might even logically treat the activity of the diaphragm and of each of the intercostal muscles in relation to the total pattern of respiration.

Great success cannot be claimed by the inventory-making tendency. It is its convenience and strength to find a specific drive for every specific activity — a rabbit provided for each hat, so to speak — so that its explanatory value for large problems is lost. These are among the reasons which have led psychologists in general to prefer a middle region of a limited number of relatively flexible tendencies — a few main drives.

H. A. Murray is representative. For Murray (1938, pp. 54-60) a need is.

> . . . a hypothetical process the occurrence of which is imagined in order to account for certain objective and subjective facts . . . [In the formula] B. S. →A→E S., where B.S. stands for the conditions that exist at the initiation of activity, E. S. for the conditions that exist at the cessation of activity, and A for the action patterns, motor or verbal, of the organism. . . . to explain the observed phenomena — the realization of a certain effect — what attributes must be possessed by an organic force? Let us see. It must be something (a) that is engendered by a certain kind of B S.; (b) that tends to induce activity, activity which, at first, may be restless and random, but later becomes effectively organized; and (c) that tends to persist until a situation (E.S.) is reached which contrasts with the B.S. in certain specific respects. The E S. *stills* the force which the B.S. incites. Thus, the force tends, by producing a certain trend, to bring about its own resolution.
>
> On the basis of this characterization we have constructed a hypothetical entity which has been termed a *need* (or *drive*).

The following list of manifest needs is suggested (pp. 144-145): abasement, achievement, affiliation, aggression, autonomy, counteraction, deference, defendance, dominance, exhibition, harm avoidance, infavoidance, inviolacy, nurturance, order, play, rejection, seclusion, sentience, sex, succorance, superiority, understanding (a half-dozen other needs are mentioned). Note that most of Murray's needs are clearly *social*.

Each drive may be defined either in terms of its physiological base, or in terms of its goals (the functions which it serves), or in terms of observable behavior-processes which are manifest in seeking such goals. Murray prefers the second of these. It is not difficult to combine all three aspects, as in defining hunger as gastric tensions which result in food-oriented behavior and food ingestion.

A convenient classification, probably no better and no worse than most, is that shown in the table on the following page (in a very rough way one may note that in the first three columns we list drives in which internal stimulation plays a major part in initiating response, while in the fourth the most evident stimulation for arousal of the response is likely to be a sudden disturbance in equilibrium resulting from outside stimulation).

The term "etc." is used to remind ourselves that there are many more known drives than it is useful to catalog. We are abstracting from a complex and fluid matrix, and there are doubtless many drives waiting to be identified and described. An approach somewhat similar to this appears in Angyal (1941, pp. 208-242).

What shall we do about the fact that the impulse to rhythmic activity appears both as an activity drive and as a sensory drive; about the fact that in the same column we find diffuse responses like excitement and specific ones like rage; also the fact that there is no place for smiling, or mirth, or laughter? Perhaps we may take our cue from this last point; perhaps the whole drive-classification enterprise makes such impulses as the impulse to laugh feel they are not wanted in so solemn an undertaking. For surely the organism is not divided neatly into four categories, nor is each category composed of tendencies which are alike in their degree of simplicity, specificity, or identifiability. But we must abstract in order to talk, so we abstract.

In addition to any list of drives which offer bases of activity, one must take into account the inherent human tendencies toward develop-

Visceral drives	*Activity drives*	*Sensory drives*	*Emergency responses*
hunger	restlessness	drive to experience:	excitement
thirst	general drive to activity	sights	fear
rest and sleep	perseveration	sounds	rage
oxygen-drive	rhythm	touches	disgust
diffuse undifferentiated affection			
sexual	curiosity (wonder) and exploration	smells	shame
maternal	impulse to cope with, master environment	tastes, etc drive to exploit	grief
etc.	etc.	rhythm, climax, contrast etc.	etc.

ment or complication of these drives in a particular manner. For example, the *tendency to form conditioned responses* is itself just as fundamental to the life of social motivation as the fact of salivation or swallowing. The tendency to cathect, the tendency to associate, the tendency to give structure, the tendency to remember or to forget, all these are dynamic forms of activity which come with the human package. A very fundamental aspect of social motivation is the tendency to warm up or "work to a pitch," maintain oneself at high level, and to peter out. Any catalog of human action tendencies must take into account the ways in which the motives are elaborated in social living, the kinds of integrations which they are capable of forming, the ways in which they relate to fresh demands, the possibility of transfer, etc. Thorndike (1913) long ago grasped this fundamental issue by referring in the *Original Nature of Man* to the "tendencies of the original tendencies." In this rather quaint, and at the same time highly appropriate, phrase he indicated the fact that there are not only ingrained human tendencies, there are also ways in which tendencies tend There are second-order elaborations. This is the essential point made here. It is obvious that the development of human social motives such as the desire to communicate and to be understood, the desire to lead and to follow, the readiness for change, the fascinations of novelty, and the weariness that comes from boredom — all these are expressions of the way in which elementary motive patterns are elaborated into action patterns. The love of the old (under certain conditions) and love of the new (under certain conditions) represent a social fact of cardinal importance in the theory of social change. Here the role of social learning is clear. But the learning process presupposes not only original "tendencies" but the tendencies of the tendencies, the drives are socialized in accordance with the potentialities they offer It is at the level of these high integrations that we actually observe our fellows. We do not observe hunger or thirst; we observe the man going hungry and developing habits of response in relation to his hunger and towards the world in which satisfactions of hunger may be obtained. It is the "tendencies of the tendencies" that constitute food-seeking behavior, not the raw fact of hunger in itself.

It may be worth while to sketch out how such a list of drives might be made useful. The problem is to see how a diversity of drives is integrated into a functioning whole. Let us take an everyday example. Working with the chart given above, one might point out that the concrete activities of preparing and serving meals in human cultures are always more than food-gratifying tendencies. They are not explained by referring to a food need. The need for gratification or titillation of the senses of smell, taste, touch, and the thermal gratifications of hot soups and ice cream, etc., and the web of associations between food needs and the need for company, make it forever impossible to explain etiquette, the food style, the ceremonial aspects of the "date" and the banquet, the social meaning of eating with one's own group (excluding the person of lower status), all of which are intelligible only by considering the fusion of many tendencies Noting some of the elements of the second column, one may ask in the same way what the gratifications may be in looking at sunsets or visiting Van Gogh or Rembrandt collections. Here there is a gratification in color, in line, in texture, in proportion. One

may note, as Berenson (1909) did, that the lover of pictures tends to move toward, reach, touch them, incorporates "tactile values," just as the modern student of motor theories of consciousness (Max, 1937) or sensory-tonic effects (Werner and Wapner, 1949) would point out that there is much of the muscular combined with the primitive visual response to color and the rest. There is also, of course, powerful intellectual satisfaction, which one may call the gratification of using one's brain as one likes This in turn is related to the prestige of being one of those who understand, and to the collector's satisfaction in accumulating a few more fascinating things. In this way one goes on to a further group of factors in which one feels bound together in comradeship. "We are those who know." One may revel in the joys of the "inward eye," as one recalls the picture, or the outward eye, as one talks to others about what one has seen and shows oneself worthy to be among the little band of the connoisseurs.

Let us take an example of the integration of social motives from the sphere of politics. There are satisfactions of primitive, combative tendencies to be had. One identifies at the same time with the leader whose wit or whose savage lunges lead to our laughter or our "give 'em hell" slogans. There is social solidarity, rooted in primitive experience of support from others and warmth toward them, just as the seven-year-olds have to make up each day a fresh base for cleavage: "Everybody that likes chocolate ice cream stick their hands up," "Everybody that hates Miss Jones thumb their noses!" There is much of this "we" feeling in politics. There are also many satisfactions as we test our wits in comparing predictions, as we display our knowledge of political fine points, as we discover this or that which confirms our hunches. There is a big gambling satisfaction in looking forward to the outcome, the element of uncertainty combines with power satisfactions insofar as we can, in any way, influence or manipulate others in the direction of our own interests. For behind politics, of course, is the huge and obvious cluster of motivations known as "economic." Our own vested interests are always to some degree involved. It will put money in our pocket, it will butter our bread, if our candidate wins. Politics is thus a typical example of a very complex blend of many motives.

The only advantage which this middle approach offers, as compared with the one-drive approach and the inventory approach, is that it helps in the analytical job of specifying components which are seen at times separately and which are also seen at times to flow together. In the child's dawning awareness of political matters, or in his increasing appreciation of the arts, one may see exactly this interaction or fusion of components.

Social Motivation and the Learning Process

These examples may perhaps help a little towards a theory of the *way to proceed from the simple to the complex*. Perhaps the simple motives of the classification chart, conceived in their raw or undeveloped form, would be useful in the study of "feral" children, like the wolf children described by an Indian missionary (Gesell, 1941). But in any individual developing in a cultural milieu it is not the raw but the culturally developed and elaborated motives that chiefly concern us This means that we must say something about the learning process as it modifies and redirects the motives.

For a systematic discussion of the learning process as related to drives, see Tolman (1951), Hilgard (1948), and Miller (1951). Miller, among others, has shown that it is easily possible to develop a theory of *learned* drives by noting that some "instinctive" drives, such as fear, become attached to a specific situation, e.g., a light or sound, and that henceforth they operate in relation to the new situation in the same manner in which simple "instinctive" drives, e g., hunger, operate in reference to their satisfiers, e.g, food. The animal motivated by fear in relation to the light (e g., receiving electric shock when light is shown) learns ways of avoiding the light, just as he learns ways of gaining food. There are doubtless thousands of "learnable drives," in this sense. In the same way, there are "learnable rewards," such as money, i.e., objects which are not the satisfiers of "instinctive" but of "acquired" cravings. This manner of separating instinctive from acquired drives (or rewards) is not congenial to the present writer, but there is no doubt that the attempt to press stimulus-response learning theory into the definition of social motives is an interesting modern development which may simplify many of our problems. Likewise the various "expectancy theories" of learning, which regard learning as the establishment of new expectancies as to what the world may bring to the individual, have offered, as in the work of Tolman (1951), highly structured conceptions of the almost endless modifiability of

response to a panorama of changing situations.

Since the learning process is considered in detail elsewhere in this volume, I will content myself here with a note on three types of process important for the modification of social motives.

First, conditioning. In terms of classical Pavlovian theory, any object present during or just preceding the course of an activity, e g, an inner activity known as a motive, tends in some degree to elicit that activity when later presented. Even in the absence of the "original stimulus," food, our mouths water at the dinner bell, our hate is aroused by the name of our enemy and not only by the enemy's physical presence. This kind of conditioning may actually set a motive going when it has been quiescent, it may, for example, arouse a hate which has long been latent. There is also "operant" or "instrumental" conditioning; an activity followed by a reward tends to be repeated Whether this is basically due to the same mechanism as Pavlovian conditioning is a question beyond the scope of this chapter.

Second, motives intercommunicate with one another because they can enjoy no sharp physiological isolation, and in time they may become closely connected, so that the arousal of one serves also to arouse another If these interrelations between tissue systems are present even at the beginning, one may well expect to find some of these relations made closer and closer as a result of experience; in other words, learning may weave together the web of the motive pattern This is one of the things that we mean by personality, the tendency for certain *syndromes* of motives to appear in one individual rather than in another.

This kind of learning may be conceived in terms of a simple associative mechanism, probably ultimately of the same sort as appears in the conditioned response. If it is a fundamental attribute of experience to be subject to many motives at once, in the sense that various tissues responsible for motivation are functionally interconnected and act at one time, it will follow that our everyday behavior will arise from "mixed motives." When we have heard magnificent music we are likely to be more sensitive to friendly relationships, to be more in love, to be more pleased with ourselves, to be more ready for vivid and strenuous activities. Conversely, depression or despair may alter our capacity to enjoy our food or even to take rest from fatigue. A somewhat similar point has appeared endlessly, of course, in psychoanalytic studies of the process known as sublimation; the artist's sublimated love may take the form of love of color; the musician's sublimated love may take the form of love of tone. The theory of the interrelations of motives involves more than this, but first of all it involves this tendency of a motive to find an expression in an activity not necessarily related to that motive

In addition to these simple and local interactions of human motives, there are complex interconnections or dynamic integrations of motive components It would be legitimate, in view of the universal importance of the sex motive in human life, to say with the psychoanalysts that sexual energies are used in oral, muscular, esthetic, religious, political, and other types of social behavior. There is no sensible reason to be shocked or annoyed by this conception of the omnipresence of the sexual. The only problem is to note that there is a similar omnipresence in the case of many other motives. Just as the arousal of sexual interest may influence the intensity of response to color and form, so other social motives may in turn influence the sexual, or express themselves through the sexual This does not indicate that love of color or tone (in bird, monkey, infant, or man) has a sexual origin, or that the interdependence of sex and other motives is essentially different from the interdependence of other motives with one another.

So far, we have considered conditioning and the analogous phenomenon of association between motives. If space allowed, one might spell out many of the types of associative learning, including the world of symbol and the world of conceptual thought. These are, however, treated at other points in this volume, and we shall pass on to another type of learning heavily emphasized by the psychoanalysts and by McDougall (1908), and to some degree given recognition by Tolman (1951), but almost entirely neglected by contemporary social psychology For present purposes it is roughly similar to Freud's "investment" or "cathexis." Janet called it canalization. The process is one of progressive increase in the strength of the association between a specific object and a specific type of satisfaction, so that in subsequent behavior the satisfaction is sought by pursuing this particular object rather than some other object which might serve the drive just as well. The little child when hungry may be satisfied by milk, by strained carrots, by olive oil, by candle grease, by rice, or by reindeer steak. But it is the function of the parents and of the broader culture to "teach" the child what are right or good ways of satisfying hunger, by presenting these objects repeatedly under conditions of hunger, so that a given food becomes the normal, right, or appropriate food for the

hungry individual. From such a point of view the child in one cultural area comes to accept reindeer steak as good food and rice as a strange or alien stuff thrust into the mouth, the child in another area undergoes the reverse process We develop "acquired tastes", we learn the types of satisfactions to be expected from certain types of objects which we see or touch or smell or taste. It is highly probable that the dynamics of canalization can ultimately be worked through in the same terms as those required for conditioning or for any type of associative learning. At present, however, there is a practical functional distinction to be made, which lies in the fact that in the case of cathexis we are responding not to mere signals indicating that satisfaction will be available to us, but to the very satisfiers themselves If the dinner bell makes our mouths water, this is certainly conditioning, we do not, however, try to eat or drink the dinner bell. The dinner bell, as a matter of fact, loses its stimulating power in this respect if it is repeatedly rung when there is no dinner to be had. In the case of cathexis we are not dealing with substitute stimuli or signals of this sort, we are dealing actually with food on the table.

From this fact of the directness of the relation between the motive and the behavior follows the important practical result that canalized responses are apparently not "extinguished" in the way which characterizes most responses depending upon conditioning. Indeed, it is not certain whether they are extinguishable at all. To extinguish a conditioned response what is ordinarily necessary in everyday life is simply to give the signal without following up by giving the satisfaction, or to give the warning without giving the shock. Children cling, however, to food preferences, and adults cling to music and literary preferences, and indeed to the dear familiar scenes of golden childhood, in a way which is not very reminiscent of the extinction process as such. It is of practical importance to recognize our dependence upon the structure of our cathexes for a large part of what we call the core of our personalities. McDougall (1908) eloquently pleaded for this view forty years ago. Strangely enough, however, he was concerned, in his theory of *sentiments,* with the clustering of many cathexes upon a single person or object, and he attempted to show how such clusters function but did little (less than Freud) with the dynamics of the formation of the individual cathexis. We can be depended upon, year after year, to cling to much that we have learned to love, and likewise to maintain the aversions and avoidances of an earlier period. Undoubtedly part of this stability in personality is due to the constant reinforcing effect of daily environmental pressures, one finds some of it, however, even in the isolated individual, in the Alexander Selkirk who served as model for Robinson Crusoe, and in the withdrawn schizophrenic. There is a great deal of self-stimulation, a great deal of continuity, in the pattern of acquired tastes, which maintains itself without outer reinforcement, and indeed often in defiance of very great external pressures.

Social groups cling, sometimes magnificently, sometimes tragically, to the experiences of satisfaction which belong to an earlier phase in their history. The Puerto Ricans, even when an excellent variety of foods was available to them during the war, clung to the codfish diet to which they were habituated. The phenomenon of "cultural lag" may indeed be due in considerable degree to this inextinguishability of deeply canalized responses. As McDougall pointed out in his theory of sentiments, it is not enough to explain human behavior in terms of the impulsions of the hour, their structure and their relative capacity to resist change are among the basic phenomena of social living. Social motives must be conceived, then, not as the flotsam and jetsam of a momentary cross section in the individual life, but in terms of that solid and enduring structure or core which is discoverable in individual character.

In recapitulation, we have three elementary phenomena to consider in relation to social learning: (1) the establishment of conditionings and the continual reinforcement of these conditionings in daily life, so that certain responses continue to be important if once they were important in the past; (2) the weaving of a web of associations between the different motives in the form of integrated wholes; (3) the phenomenon of ingrained, canalized responses which help to provide individual continuity through the years. Many attempts (cf. Murphy, Murphy, and Newcomb, 1937) have been made to derive more complex forms of social learning (suggestion, imitation, acquisition of cooperative habits, etc.) from simpler ones, such as those noted here. Space is inadequate to do justice to the problem in this chapter.

Derived or Complex Motives

Having made up my own list of motives, I can see its virtues All our lists are idols of the den Having summarized the elementary learning processes in my own way, I can if I choose say that the social motives of a mature person who has grown up in a culture are the products of the process by which these motives have been developed and organized by these learning processes. But how difficult the task is!

Those who are wise and sensitive in relation to man's long history, the depth and the altitude, the scope and the inwardness of his wants and his sensitivities, those who think in terms of folklore, literature, painting, music, pageantry, the dance, and the theater; craftsmanship in ivory, in stone, in wood, the lilt of a new phrase, the trembling effort to find a word or a gesture for an intangible mood or feeling — these people glance at our psychologies of motivation and turn away disheartened. We list for them series of basic biological motives. They have heard of these things before, they do not see quite what is involved in listing them. Often they want a bridge built from the world of their experience to the technical psychology of today; they not only find no bridge but often find a studied attempt to deny that a bridge needs to be built. The psychologist is likely to be annoyed, regarding it as self-evident that the subtlety of a Petrarchan sonnet, or the pizzicato of a Schonberg caprice are explained, documented, docketed by a reference to an item on his list. Even the sublimation theory, gauche though it seems to be, is a hair's breadth nearer to their experience, because at least it involves some resonances and some complexities.

Any serious conception of social motivation must be theoretically complex enough to provide raw material for the manifold subtle components in the motive potential of mankind, must see how the growth and learning processes may complicate and interweave these expressions, and how the different types of cultural arrangements may mold, stabilize, and integrate the various fusions and complications of individual experience. To say that the music of Tristan and Isolde is "erotic" is to say studiously and solemnly something which could also be said of the single phrase, "I love you." But even "I love you" in our culture is very much more complex than an expression of an erotic response. What typically happens is that sensitivity to the warmth, the grace, the line and surface, the cadence of the voice of those who minister to us, the depths of tenderness, the sense of security, the joy in identification — all these things enter into the earliest deep experiences of a child in relation to mother, and in time also to father, to sister, to brother. Love, even in the small child, involves a flowering and an elaboration not of one but of many motives, which are then slowly fused in the high temperature of all deep experiences Passionate devotion to one's pet or one's doll gives training in the integration and confirmation in the value of the experience of loving. "Puppy love" affairs, however much they may be ridiculed by the grown-up world, involve further experience. Just as the body is ripening, developing greater range and richness of response, with its energies released by the general physiological changes and the specific sexual changes of the period, the individual is played upon by the complex music of the culture in which countless generations have learned to make the most, in depth and in range, out of the meaning of manhood and womanhood and the intensities of man-woman response. The love music and the love poetry which belong to the ages are those which catch the many overtones of the grand passion with color, tone, rhythm, subtlety, indirectness, all combined with majesty and power. Because these things are intense, and much too intensely personal to belong to the marketplace, the devices for concealing and revealing at the same time, for enriching and making subtle, are a normal part of the arts of love, whether in their personal or in their culturally defined form. Any serious theory, then, of social motivation must deal with much more than the raw material of the motives; it must deal with the central fact of complexity of interrelations, and of cultural molding of interrelated aspects into a culturally defined totality.

Simply as an example of what might be done with the attempt to explain everyday social behavior in this kind of language, I will attempt to look at five conceptions of *religion* conceived as an institutionally organized form of social motivation, in which the experience of "individual men in their solitude," as James (1902) phrased it, can be seen in relation to broader historical and contemporary social forces.

(a) Let us begin with a free translation and modernization of Marx (1867). Fear of the unknown and the desperate desire to control that mysterious world from which disease and misfortune proceed led primitive societies to develop socialized arts of propitiation, exorcism,

magic, and prayer, directed toward the unseen sources of their woe. As these arts develop, they are used for the protection of property as well as for the protection of physical well-being. Those who become expert in these skills achieve prestige in the group. These skills are more and more used thereafter on behalf of those who are powerful, those who control the goods and services of the group. As the differentiation of labor eventuates in class structure, religion becomes an organized device for controlling the unseen world. At the same time, since desperate need for control of the unseen environment is experienced also by those who have no privileged position in the society, they must constantly seek the support of the experts, the priesthood, rather than rely on their own helpless efforts. They can achieve considerable relief in this fashion, for apparently the ministrations of the priest do result in the aversion of disease But more important to the masses than the immediate aid from the priestly craft is the fact that after a sojourn in this vale of tears they may, with the aid of the priest and the organized religious pattern which lies behind him, achieve bliss in a life to come: "Religion is the opium of the people." "There'll be pie in the sky." Religion arises therefore from need, from sorrow, from inability to control the invisible world, from reliance upon experts in such control, and above all from the continuous and effective operations of the priesthood. Allied with the upper economic elements, by giving some apparent present gain and much apparent future gain, it can maintain its position and actually support the elite against danger from the mass The assumptions here about motivation may be put in a few words. grief and anger as frustrations, fear of the unknown, imagination guided by desire.

(b) While this might be called an approach at the level of the basic or elemental facts of physical existence — broadly speaking, an economic approach — a second approach, a little more complex, is exhibited by Tawney (1937) in *Religion and the Rise of Capitalism.* In this volume we are reminded that the Reformation and the Commercial Revolution overlap in time. The Commercial Revolution involved the downfall of the traditionally privileged landed classes and the development of a merchant group ultimately recruited from all the groups forming the society of western Europe, a group utilizing the accumulated wealth and fresh gains to be had from commerce, and especially from the processing and sale of wool. One became a member of the merchant class not through inheritance, not through war, not through royal favor, but through individual skill, effort, initiative, and "good luck." All this led to a fundamental shift in the moral outlook. In the medieval period man had been responsible for his neighbor through charity, and recognized various Church-supported rules which insisted upon justice, upon humanity, and upon the maintenance of fair business standards. Life was far from this ideal, but the ideal existed. Fairness was both a matter of acknowledged equity or justice and a matter of an accepted principle of humanity in relation to the poor. With the Commercial Revolution it was the successful individual practitioner in the great game of skill and chance known as commerce who could command respect. As a matter of hard business relations one must take usury (interest) ; one must let the devil take the hindmost. Medieval group morals yielded to individualistic morals.

The individualism of the period was, of course, manifest in other quarters as well, and an individualistic struggle against the authority of the Church took many forms. In Calvin the ultimate refinement of individualism was achieved by establishing a direct relation between the individual and the Deity, not requiring the intermediation of the Church and based entirely upon the authority of the Deity and the abject dependence of the individual worshiper upon Him. Now the individual was encouraged simply to do what is right in the eyes of God. There was no special preoccupation with the needs of one's fellow men. Right or wrong are not only absolute, they are defined by a God-man relationship not even involving a man-man relationship. Translate all this into economics, as one reads the parable of the talents. He who received five talents practiced the necessary commercial craft and brought in five more talents. He who was given one talent hid it in the ground. When his lord returned, he condemned this servant for his unfaithfulness.

Duty thus became a personal, not a community affair. Religion was profoundly colored by the new economic trend. It is not maintained by Tawney that the Commercial Revolution *caused* religious individualism, or that religious individualism *caused* the Commercial Revolution. Rather, the point is that as the Commercial Revolution progressed, *it made it easy for the representatives of the new economic system to accept an individualistic religion.* They could practice their business with a clear conscience, and with high inner effectiveness, insofar as they accepted the new doctrine of the individual's responsibility solely to God.

From this point of view a good man and a successful man can, to a high degree, be fused into a single unit The rise of capitalism provided a suitable atmosphere in which the new struggle for individual gain could be effectively and righteously prosecuted.

(c) A still higher order of complexity in the interpretation of religion appears in the struggle of Max Weber (1930) to cope with this same issue in his extraordinary volume, *The Protestant Ethic and the Spirit of Capitalism* Noting, as any careful observer must, the greater commercial development of the Protestant portions of Western Europe — take for example the extraordinary differences between Scotland and Ireland, or between Huguenot and Catholic France, or between Lutheran and Catholic Germany — one asks the fundamental question: What kind of people should I choose if my business is to prosper? It is general experience, Weber points out, that the German employer would rather have Protestant than Catholic subordinates, whether they be managers or clerks. An eye to business is found among Protestants, as it would be among Jews, much more readily than among Catholics. What is the basis for this?

After analyzing and eliminating a number of possible interpretations, Weber develops the thesis that the drive toward business has a psychological function in the personality of the Protestant which it cannot have in the personality of the Catholic. For the Catholic, business is a secondary affair. One does well or poorly, it is not a sin to do poorly, nor indeed to become bankrupt. "Render unto Caesar the things that are Caesar's and unto God the things that are God's" For the Protestant, however, after the period of Luther and Calvin, the conception of morals became anchored more and more upon the conception of individual successes as a mark of God's favor. All that interferes with business success is immoral. It is in Calvin's Scotland that thrift is Godliness Not only wantonness and violence but also the amenities, the arts, the good taste of leisurely living are feared.

But why, skeptical readers may ask, should the individual struggle to curry favor with the Deity, in view of the doctrine of predestination, which insists that whether a man be saved or damned has been determined before the man's birth by an infinitely powerful Deity who is subject to no appeals for reconsideration? The reply is that it is not the effort to placate or win over the Deity which goads the unremitting efforts of the businessman Rather, he feels within himself a gnawing anxiety, a continual question: Am I among the elect? The only way he can hope to know the answer, the only way he can save himself from this gnawing anxiety, is to note whether he is being prospered or not in the affairs of this world God is no deceiver If the man prospers, this is because he stands well in the eyes of God. One may therefore remove the horrible questions from within if in one's labor one devotes oneself to the task and if one meets with success.

In supplement to Weber's thesis, the contemporary reader may note that business success is *socially approved* and here draws the fangs of a hostile competitive world. It is proper also to refer to the theory of the superego, to show why the experience of success, which is right in the eyes of the *family,* serves to allay the sense of guilt

(d) The psychoanalysts would have very much more to say about religion than is contained in the paragraphs which follow, and only one aspect of the psychoanalytic position will be developed here. It would not be possible, even in several volumes, to spell out in full the intricate applications, many of them ingenious and relevant, which the analysts have made in relation to human religious experience and behavior.

Psychoanalysis is basically family psychology. It is the psychology of infant and mother, infant and father, infant and brother and sister Freud, especially in *Group Psychology and the Analysis of the Ego* (1922), showed how we might learn to think of institutional forms as expressions of the earliest family attitudes. In the Roman Catholic Church, for example, as in some others, we have a vocabulary which beautifully shows the psychological system within. What shall we call a man upon whom we rely, a strong ideal figure who will love and protect, yet who holds authority? Father, of course. This is what one calls the parish priest. What shall we call men who live together in a special subsociety supporting one another, loving one another, devoted to a common cause? Brothers, of course. And this is what they are called in the cloister. What shall we call women in a similar position? Sisters, of course. And this indeed they are. What shall we call a woman who stands in a position of authority over these other women? A mother, of course, a mother superior. What shall we call him who stands in the relation of authority over all the living? Father, of course, Papa, which in English is Pope.

One might go very much further, but it would not be difficult to show that most of the religious systems of the West and of the Middle East — certainly Judaism, Islam, and Christian-

ity — are saturated with a family psychology. Religion derives its authority primarily from the patriarchal figure There is punishment for wrongdoing, but there is also forgiveness, a principle of atonement. It was, indeed, an elder brother who made the supreme sacrifice for the rest of us in the eyes of a proud, just, inexorable Deity who could forgive up to a certain point, but who had to demand realistic payment when the crime was of an otherwise inexpiable order. The great paradox is the expiation which God incarnate, the Son of the Omnipotent, manifests for us The religious systems of the West can then be understood in their raw, central potential in family terms. Not, of course, solely in terms of authority. It is agreed that fear of the unknown, need of support, a delight in the exchange of affection, etc., are to be given due weight. One would inevitably go on from such a point, if one had the space, to show that the cult of beauty, the development of religious music and architecture, the cult of education and even of science are all rooted in the child's experiences in the family. Indeed, any psychology of religions must ultimately use such material. It must include all this and much more. Ultimately a family psychology must provide a clue to the psychology of religion, because it is in the family that personality is nurtured, its needs defined, its first satisfactions experienced. Above all, it is through the coherence of family structure that group living is learned and that a group outlook, ultimately a cosmic outlook, is defined.

(e) Religion as family psychology makes more sense in the West than in the East. None of what has just been said can be duplicated in an exact form in the religions of the Orient. However much the joint family or extended family of India or China may appear to dominate the scene, we are concerned in the East with the relation of the individual to the cosmos, which is usually not conceived in personal terms; and much of Eastern religion is concerned with the struggle of the individual to emancipate himself from his individualistic needs, to wean himself from the here and now, the immediate, the biological, and to find his relation to (and ultimately his identity with) a unitary cosmic process This cosmic process is not a father; it may indeed have some father attributes, but it is much deeper and broader than a personal process. Any conception, therefore, of the psychology of religion must be prepared to adapt itself to an enormous range of material, as exemplified by the differences just mentioned between Western and Eastern culture. Here the activity drives, the sensory interests mentioned earlier, some of the more complex intellectualistic factors described earlier, and, above all, the response to the frustrations involved in all personal existence, will have to be given their role. Ultimately we shall have to use the psychology of the East itself, integrated with our own, to make the story more adequate.

We have looked at religion as a complex structure supported by many motives Let us extend our attempt to explain the complicated through the simple by taking another very complicated and very human kind of response: the quest for *understanding* There is probably no better test of a theory of motives than the degree of adequacy in interpreting a complicated motive like man's curiosity as it appears in philosophy and in science. Man tries to discover what lies beneath the events that occur about him. He creates systems of abstractions, like logic and mathematics; he constructs a cosmology and a theory of the nature of reality. Many visceral drives may, of course, enter in an obvious way into the total, as hunger in the Nile Valley led to the development of geometry. It is properly pointed out, however, that the hunger for understanding often develops in the individual to a point at which *satisfaction,* in any real sense, is impossible. One seems to aggravate one's difficulties as one attempts to satisfy one's cravings Gauss locks himself in his garret for 48 hours solving a mathematical problem Even if it could be proven that the mathematical search is in itself directly motivated by a simple biological craving, the actual behavior, which frustrates hunger and almost everything else at the time, is fantastically beyond the scope of such interpretations.

We have, consequently, the effort of psychoanalysis to develop a theory of investment of libido (cathexis) upon abstractions, e g, upon numbers, or even upon the process of working with numbers, and ultimately the "erotization of thought." This appears to be sound insofar as the pursuit of mathematics is not carried on without reference to the general economy of the living system as a whole. Just as there is no perpetual motion, there is, so far as we know, no psychological activity which is motiveless. If, on the other hand, there is evidence, such as Asch (1952) offers, that there is an inherent joy in understanding for its own sake, would it not call for more empirical study? Is it not possible that because we are complex creatures we have drives which result from our complexity? Is it not possible that there are motivated activities the organic seat of which lies in the

integrated activities of the central nervous system coming to terms with the world outside, as in the effort to understand order and complexity? Actually, the beginnings of the activity which we call curiosity can be seen in the tiny child who watches an object which gradually passes out of his field of vision. He "perseverates," we say; he pursues the object even when it is no longer acting upon his sense organs. It is this sort of thing which all of us do as we pursue the known into the sphere of the unknown. It is because we are physiologically and psychologically complex enough to respond to that which is no longer present that these functions at a high integrated level take on so large a place in human life.

But there is more here than perseveration. An astute observer of children remarks: "There is no more fundamental drive in the little child than the drive for perceptual clarity." It appears in the alert eyes and face of the infant as he "studies" us, and in the endless "whys" of three years later. There is, of course, participation by the visceral drives; "Why can't I have dinner now?" In many eager or anxious questions there are activity drives and emergency responses as well, of which perseveration is one, the effort to "come to terms" with danger is another, and the effort to perceive clearly is a third

Now as to the motivation which leads to abstraction, as in the development of language, of philosophy and of science: if objects as whole coherent clusters of sensory qualities, involving line, shadow, color, etc., can be thus pursued after they disappear from our sensory world because we are perseverating (i.e., because our cathexis on the object persists even when it has passed into the realm of image rather than sense impression), is it not possible that some single attribute can likewise be pursued in the absence of the rest? If, for example, a red triangle disappears, can we not drop out the redness and pursue the triangularity? The fact that this process of abstraction is constantly seen in childhood development and that the process of naming follows from such abstraction means that we go only one step further when we find the individual pursuing the abstraction because there is cathexis upon it.

The deviation here from psychoanalytic theory lies in the fact that the cathexis is held to be inherently directed to the object itself and not to a sexual goal which is in some way symbolized by the object. The child pursues this good world of sensory impressions because it is a good world of sensory impressions. Some of these impressions may later take on sexual value, but this merely complicates, it does not constitute the fundamental base of the phenomenon.

In the last few pages an attempt has been made to sketch a theory of the derived or complex motives, and to show the relevance of this theory to such social institutions as religion and science. This may be read side by side with the rich psychoanalytic and ethnological material outlined elsewhere in this volume From the present viewpoint there is special value in Erikson's (1950) elaboration of the hypothesis that both the *zones* and the *modes* of early satisfaction serve as prototypes from which complex adult attitudes are in time developed.

Conflict

At a very simple level, observable in animal behavior below the primates, in human infancy, in cases of impairment of function due to drugs, fatigue, etc., one frequently encounters a principle which has been described by Razran (1935) under the term "dominance." The principle is that when two antagonistic conditioned responses, each thoroughly established, are thrown into competition with each other (so that each tends to negate the operation of the other), the result is not compromise or confusion, but a simple victory of one over the other. The concept of dominance does not tell us which one of two tendencies, such as amusement and annoyance, will win the victory; this must be ascertained by empirical study. Rather, what it says is that our response is funnelled in one direction or the other, with resulting elimination of the competing element, rather than compromise or confusion. The cautious reader is practically sure to challenge this proposition as soon as it is stated, because he will think immediately of learned behavior, in which there is confusion and mixture or alternation, not simple victory of one over the other, or of cases in which two responses block one another. This challenge is excellent, for it helps in bringing out the distinction between true dominance effects at a very simple level of integration, and the more complex types of phenomena which exemplify a very different principle, at the level of symbolic living.

We get rid of one habit while forming another. Indeed, we are constantly dropping off the old in favor of the new; it is difficult for us to function in the new way while retaining

the old way. This arises partly from the fact that the new is in conflict with the old, and would not be acquired unless the old were failing to serve its purpose. Of course, the old and the new responses may represent different areas of function, as in talking English to English-speaking people and French to French-speaking people, here, since no incompatibility between well-learned responses is involved, no conflict and no unlearning need appear. If, however, we learn at much cost how to spell and type, or how to be "ladies and gentlemen," there is a certain awkwardness (self-consciousness) in the attempt (upon demand) to recapitulate the behaviors of an earlier period. Something new has effectively replaced the old.

But as soon as we enter into these more complex types of behavior, we begin to "smell a rat." Dominance works at the conditioned response level, but not at all levels. We begin to grasp that something more is involved than the principle of dominance. The existing habit does *not* necessarily give way as a new one develops. There is conflict. Frequently the conflict, instead of being eliminated through the principle of dominance, remains acute and becomes a source of great stress or anxiety.

It becomes evident, as the psychoanalysts have long known, that often we are dealing here with the phenomenon of cathexis upon two objects which cannot both be had at the same time, so that as we tend to gain one we tend to lose the other. Or we discover another type of incongruity between responses, in which we love and hate the same individual (ambivalence). In either case, whatever activity serves as consummation of one tendency serves as a frustration of the other. Since it is impossible, in accordance with our hypothesis, to eliminate canalization by the extinction principle, we should expect ourselves to be caught in the web of more or less permanent conflict. Ambivalence is one of the commonest sources of human misery. Frustration arises not only from inability to reach a specific goal, it arises also from the impossibility of having at the same time several different things all of which we like, but among which we must choose. It is the frustration of goal-seeking responses that causes the trouble; but this is often due to the biological and cultural richness of man's wants and the limits which space and time offer to the satisfaction of these wants. It has sometimes been suggested by Utopian thinkers that the problem of the ideal society is simply the problem of identifying the various human needs and gratifying them separately. If, however, it should turn out to be the case that we always want more than we now have, that we always want things that are incompatible with what we already have, and that we cannot easily unlearn these wants, it would appear that this optimism is excessive.

What can be done to avoid wear and tear when conflict arises? Ordinarily we do one or another of three things: (1) We alternate between the various competing objects which offer us their appeals. This is sometimes made relatively easy for us by the structure of our environment, in which there is a time for eating, a time for play, a time for love, a time for work satisfaction, but we accept all this as a compromise rather than an ideal situation, in the sense that the balance is not "right" and that there is competition for our time from more good things than we have opportunity to pursue. (2) We make a conscious or unconscious choice; we repress and consolidate, throwing out some wishes and closing the ranks so that some of the compatible components in our make-up converge upon a few things which are worth living for and upon some central symbol which stands for the region of activity which we accept. This region is the world of consciously accepted values. The rejected values make up a large part of the properties of the unconscious world, considered elsewhere in this volume in the terms of psychoanalysis. (3) Sometimes we may be lucky enough to find a way of life which incorporates something good for each of the approved ways of living E. B. Holt (1915) cites the experiences of a girl whose parents regard the theater as wicked, but whose friends find it good. She learns to find values in the world of drama which are not incompatible with the new ethical system to which she comes, she need repudiate neither her parents nor the theater. This is the pearl of great price when it can be found A rather large proportion of our life problems, however, such as choosing a mate, a job, a home, a way of living, impose a choice between alternatives.

Motivation in Relation to the Self

It is convenient, as we have seen, to use the theory of drives as a platform upon which to construct a theory of social motivation. But such efforts, from Plato to 1954, seem to have been relatively ineffective when they have insisted upon using as functional units only the events which are specified by the relation of the outer environment to the drives. There

seems to be general agreement today that the reason for this failure has been the fact that human beings are always responding not only to the outer environment, but to themselves at the same time. This requires a brief consideration of the genesis of self-awareness and its relation to the drives

As the infant emerges from his rather blurred and global contact with his environment and begins to mark out specific objects which are recognized and responded to, he likewise learns to specify the contours of his own body, the sound of his own voice, and various kinesthetic and organic contributions from within him. These were at first a part of the global total, and appear to be differentiated from this total essentially as outer events are. Gradually, however, as the stimuli from the outer world are grouped into coherent wholes — the mother's warm body, gentle voice, comforting ministrations forming an indivisible compound in his experience — so the contributions which are related to the on-going unity of his own person are grouped together, and are finally detached from the total matrix and become *"me"* Everything thereafter which acts upon it is not simply pain, but *my* pain, not simply hunger, but *my* hunger; not just mother picking-up, but mother picking *me* up. This self-reference of practically all of experience means that the human drives must be considered in their relation to this perception of *"me"*

Now "me" cannot be neutrally accepted (Schilder, 1936). It is in general a good "me", it is warm, it is the center where the important things happen I may kick it and punish it but it is still central — "a poor thing, but mine own." It is the object of a rich, diffuse primitive affection. Love, however selfish, is the love which *I* give, hate, however despicable, is *my* hate. It would seem therefore to be unnecessary to coin a special instinct of self-love, or self-enhancement, or self-defense The precious object is defended as other precious objects are defended, but probably more constantly and more intensely because our experience of the self is more constant and more intense than our experience of most other things.

Self-love and delight in being loved appear as soon as there is a self — let us say roughly in the second half of the first year There is likewise a certain amount of embarrassment and shame when the self is disapproved, as is clearly evident towards the end of the first year, and it operates as a powerful deterrent force.

The first primitive satisfaction in oneself one may call narcissism, Freud's term for self-love based on the myth of Narcissus. The term is good insofar as it does not bind one to a literal acceptance of Freud's libido theory. But even without commitment to libido theory we may agree that there is much outgoing response, affection or love, in the earliest phases of human life It is not surprising that the object of such love is often one's own person, and that the enhancement of delight in one's own person should become in time a primary motive. Identification with others means that our self-love depends partly upon the love which others bear us And if it is just approval, rather than love, which they give, it is approval which we then give ourselves because they approve, and "prestige" is born.

Earlier we found that the lists of motives with which the biologist and psychologist are concerned seem at first sight very different from any list which has been given us by the cultural anthropologists and the sociologists, and very different from those that are implicit in the assumptions of the dramatist, the novelist, and the man in the street. Whereas the former type of list smacks of the jungle — or the laboratory — the latter smacks of the marketplace and the hearth. it speaks of the passion to be accepted, the need for group support, the struggle for leadership and power, the ridicule that goes with nonconformity, the moral condemnation that goes with infraction of the rules. These latter motives do not sound very much like the familiar list of drives.

Perhaps from the vantage point we have reached we may conclude that the trouble arises because in the one case we are dealing with rather simple components in the totality of individual behavior, and in the latter case with phases of behavior which belong higher up in the pyramidal or hierarchical structure, as characterized by the increasing complexity which comes from considering the role of the self. Fear, for example, would lie at the base, fear of physical punishment might be conceived to be a little higher up, involving a little learning from social experience of consequences to the self from any risk which we run, but selfhood may still remain very primitive. Fear of the menacing looks of those around us, say, on the day before we are ridden out of town on a rail, belong at a higher phase; fear of disapproval higher still; fear of loss of self-respect, still higher. In the same way positive response to the infant's mother when it is in need of food lies near the base; perception of her voice as a signal that our food needs are about to be met lies at a somewhat higher level. Primitive cuddling passes into love of her, idealization of her, and desire to win her approval even when

we are far from her, as more and more factors are drawn into the web and larger and larger place is given to symbolic behavior.

So we shall not really be able to move back and forth from the biological to the cultural level unless we give rather heavy stress to the role of the self in mature social behavior. Our dissatisfaction with ourselves is enhanced by the disapproval of others with whom we identify, and upon whom we are dependent. In positive response to the leader we may enjoy having decisions made for us, and at the same time pour out upon him the affection and devotion which we had in an early day toward our fathers. In addition to all of these, we may in some degree derive the satisfactions of being the leader ourselves, insofar as we identify with him who commands; we may, in a sense, *be* the father. A descriptive picture of social motives in different cultures will, of course, vary as the geographical, economic, and especially historical circumstances of life differ in different groups. But if the present thesis is essentially sound, the raw materials should always be conceived to be capable of being woven into the more complex patterns which are confronted in the study of society.

If self-acceptance and the acceptance and support of others are as fundamental as this seems to imply, we should expect that competition for status and the struggle to avoid social failure would be primary motives in social groups of any complexity, and this is what we find. We should expect, moreover, that different goals would be competed for in different ways in different societies. The Dakota Indians will not compete for the "gold star" type of reward, which works with children in the schools of western civilizations. The large amount of American research on aggression and competition, primarily directed toward status and power (Murphy, Murphy, and Newcomb, 1937), is characteristic of the special proclivities of those societies in which research is done.

In every society, however, there appears to be a considerable amount of satisfaction from sheer functioning as a member of the group, and this is a fact relatively easy to demonstrate experimentally, even in a highly competitive society like our own. Investigations of "group dynamics" (Lewin, 1948) show the satisfactions which come from the removal of fear and disapproval, and from the very strong positive satisfactions of discovering closeness with others. Along with the satisfactions that derive from obviating confusion and frustration come the satisfactions of "social discovery."

Another burden which the psychology of the self and of self-love must bear is the task of explaining the problem of conscience, of moral urgency. Here again we owe an incalculable debt to Freud. We shall leave to other chapters the account of the origins of the superego, but we shall have to note the role of basic "family psychology."

How then are the first moral responses learned? The characteristics of moral rightness, the "categorical imperative," which come with the right seem at first to be based largely on identification with the parents. As Piaget's (1932) interviews with children show, we learn very early that we, our family, are right. But we go further. Identifying with the authority, we assimilate him within ourselves, take sides with him against our own crude impulses. Self-enhancement, supported by the authoritarian role of the father, makes possible a course through life in which self-enhancement and essential morality are squared with each other. Our violent behavior toward misdemeanors of the great or the little is seldom sheer destructiveness or the release of a death instinct; it is often a highly complex organized response involving "moral indignation," and based upon much experience in the pursuit of our rights and full understanding that the support of others is needed if our rights are to be maintained.

But the need for conformity contains within it much more than the purely negative need to avert disaster. There is also the fact that life has been understood, mastered, and stabilized by learning the ways of the group. We learn how to talk, how to think, how to act, how to conform. New ideas have, therefore, an essentially immoral character insofar as they threaten the stability, the organized quality, of life. They may be permitted and given an enormous encouragement if they do not challenge the existing social structure and merely enhance specific activities which we already respect. Geographical discoveries and scientific discoveries usually win praise. Political, social, moral discoveries belong in a different realm. A prophet may be an "enemy of the people" — the whole people or of the people who amount to something in society. The discovery of truth may constitute one of the blackest iniquities. The last few centuries are strewn with the moral wreckage, the character assassination, of men and ideas which, after the block and torture are forgotten, have slowly led men into new ways of life.

Increasing recognition of the role of self-awareness in the process of social adjustment has marked the progress of psychotherapy through recent decades. Freud's *ego psychology*, built upon his earlier study of the role of in-

stinct, may perhaps be said to dominate the period since World War I. Adler (1925), with a different terminology, was constantly emphasizing the role of the sense of personal and social inadequacy. Horney (1937) and Fromm (1941) founded their approaches to analytic theory upon the conception of a disturbed relation of the self to society, the former through stressing the "neurotic need for affection" and the struggle to build an artificial self for public and private contemplation, the latter through noting the effect upon the individual of the loss of the security earlier provided by a predetermined place in society, and the advent of the loneliness which comes from competition for status. This movement was given a systematic expression by H. S. Sullivan (1947), who regarded mental health and illness as expressions of sound and unsound "interpersonal relations," and emphasized the "paratactic" processes which arise from early social rejection of the self and culminate in disturbed perception of the relation of self to society. Rogers (1951) regards a fuller and clearer perception of the self as of paramount importance in therapy, while Snygg and Combs (1949), in the same vein, borrow some of the language of phenomenology to describe the task of the therapist in terms of systematic revelation to the individual of more and more of his disturbed or concealed images of himself.

If the principles just noted regarding self-psychology are correct, it should not be particularly difficult to explain "crowd psychology" or "mob mind." The essential principles were well understood, for example, by Shakespeare in describing Mark Antony's address over the body of Caesar Four obvious principles implicit in the address are the following· (1) Social confusion produces a strong need for clarification and for the social support of our comrades. (2) At the same time, loyalty to an individual who is a father symbol and a promiser of many good things makes possible the sharing of group hatred toward those who have destroyed him and all that he stands for. (3) Under such conditions of insecurity, social solidarity, organized despair and hate, it is possible for the skillful leader to begin by reassuring the group that all is not lost and to pass on from that to the discovery of gains to be had here and now. (4) Attention is again directed towards the frustrations resulting from the loss of the leader, and a positive outlet provided for aggression directed toward the assassins.

From such a simple example, the complex psychology of a modern lynching mob is actually not far removed. Insecurity, fear of the loss of property and status and whatever the community prizes, is aroused when an attack upon any of its members, or upon any of its special privileges or usages, is carried out. Lynchings may be prompted by anything from murder or rape down to a very petty challenge to the status of the dominant group which serves symbolically as a threat to the established relationships. Under these conditions, the aggressions which follow from frustration, particularly the frustration of the existing system of self-esteem, are galvanized into concrete action which has, moreover, the vast symbolic value of the re-establishment of the equilibrium. If there is a leader, he takes on, to some degree, heroic proportions. If the mob or mass movement occurs in connection with the bringing of strikebreakers into a struck mine area (Allport, 1924), the existing factors may be greatly reinforced by awareness that the self and almost everything that it stands for are threatened by the loss of the job. Hence the moral quality of the condemnation of the strikebreakers. We ourselves are central, so that movement against our basic rights permits the sharing of moral indignation with all whose predicament is the same as our own. Economic and political behavior typically take on this moral quality; a group stance is maintained which has not only the characteristics of solidarity, but also of fundamental rightness.

Gain, Power, Prestige

The practical difference which it makes whether we do or do not include the self in our accounts of social motivation is apparent when we try to interpret economic and political behavior.

It is characteristic of many human societies, primitive or advanced, to bind together three powerful human motives, and to treat them at times almost as if they were one: the motives directed towards material gain, towards power, and towards prestige. It may be appropriate to note some of the observations of these social motives in our own and other societies, and to see what can be done to sketch out a theory of their development in the individual and their functioning in the group.

Reaching for and grasping objects, and bringing them to the mouth or near one's person, are practically universal phenomena of infancy. The hand closes upon an object even in the opening weeks, and by the time half of the first year is almost gone most children are reaching

also for objects which they see. When Charlotte Buhler and her collaborators (1927) placed babies in a crib with toys, each child being old enough to grasp, competition was set up for the toys, and there was a good deal of "despotic" behavior, the more powerful and efficient individual, usually the older one, raked in to himself all the available objects. At this age level it is the objects that are important; there is no direct evidence that pleasure in dominating the weaker individual is an essential component. We may say then that the "acquisitive" motive, as it is so often called, is at first simply the positive response to things which leads to their appropriation.

The appropriation of objects is at first a matter of the moment. One struggles to get the bouncy red ball, but then leaves it and runs for the flower or the puppy. One may be surprised to find the ball gone when one returns. The world is one of pleasant appeals and unpleasant predicaments, rather than any reconstruction and recaptivation of earlier experiences to give the continuity which bespeaks "property." But the cherished object becomes *part of the expanded self* (James, 1890) and brings, among other things, prestige. The story changes completely when the self is consolidated to a point permitting the cherished object to become part of the self. It is not just the red ball, which it is fun to play with, "it is *my* ball," and "I got it for my birthday, you can't have it." The collection of cherished objects to be put under the pillow — the doll, the lipstick, the comic book, the catcher's mitt — or so abstract a possession as a membership in the Ace Club, or the possession of a "paper route" are directly self-enhancing. More than that, they come to give continuity, insofar as the objects themselves can be made to last and can be exploited as keys to new realms of activity, as most property can. The acquisition of property is then very much more than a looking and grabbing affair; property takes on the enormous symbolic value of ourself in relation to others, defining our positions in relation to the group.

Consequently, whatever satisfactions are obtained from balloons, chinchilla farms, or presidencies in corporations for the material gains which they convey to us, they are also in their own right enhancers of prestige. The gain and prestige motives are therefore to a large degree *fused;* we seek material goods partly for their intrinsic worth, partly for their prestige. You pay three thousand dollars for a Cadillac and another fifteen hundred dollars for the prestige of owning it. When you eat a three-dollar lunch on Michigan Boulevard, you pay two dollars for the lunch and a dollar for the "atmosphere." You buy a bottle of whiskey for six dollars, four dollars for whiskey and the tax, the rest to be one of the "Bourbons" who understand and maintain their position in the inner circle.

The prestige motive owes its adult form to its gradual evolution in early childhood out of materials which at first sight do not look very much like prestige-seeking motives: healthy satisfaction with oneself, the gurgle and giggle of satisfying activity, the sense of being equal to life's demands. That the prestige motive becomes so powerful is largely traceable to the pressures which are applied in the form of competition, i.e., comparison of oneself with others. In the same way, insofar as people enjoy fresh air, cold water, good food, warm clothing, not needing to compare these things with one another, each is good in its own right; yet if the proprietor of a hotel at a mountain resort can gain from the fact that *his* air is better than the air down in the valley, or if the owner of a home in New England can successfully maintain that the water is *"soft"* while elsewhere it is "hard," air and water take on competitive values. The self also may become a *competitive* value from this point of view. Since self-love is so fundamental, it can become quite central, *painfully* central, in the life of a normal person, insofar as he is unfavorably compared with others.

This is the sort of thing which Veblen (1899) had in mind when he wrote of "complacency" as the central motive of the leisure class Predatory individuals at the "lower barbarian stage" merely go and get what they want. But they are led in time to direct more and more attention to the fact that as successful predators they may "regard themselves with complacency"; they stand above the dirty work that falls to the mass. They therefore derive not only the satisfaction of the leisure itself, but the satisfaction of being above such mean things. Competitive satisfactions arise from self-approval, and complacency is the result. One of the consequences is the fact that in showing off this position of immunity to hard work, one indulges in "conspicuous consumption." One not only spends in order to achieve objects which bring prestige, the very process of spending is in itself a way of gaining prestige: other people can't spend in this way, but *we* can. From the potlatch of the Kwakiutl Indians (Mead, 1937) to the blowout of the penthouse clique when a new member is initiated, one encounters the well-organized practice of throwing away or destroying property for the sake of prestige.

Here one finds the clearest illustration that the gain-seeking motive and the prestige-seeking

motive are not the same thing. Indeed, in this case one actually buys prestige by a negative use of gain, one gives up property rather than acquiring it. In this case it is not the acquisition of property which brings prestige, but the de-acquisition or destruction of it, insofar as this demonstrates that one cannot be injured by so trivial a thing as the loss of a few thousand copper kettles or a few tens of thousands of dollars.

The gain and prestige motives, then, are to be expected to make their appearance in some form in normal childhood. They inevitably express both an "innate" and a "learned" phase of individual growth. But they vary dramatically in different societies, both in their own form and in their interrelationship with other motives. We ourselves live in a society in which both motives are elaborated to a high pitch and in which gain is the easiest way to achieve prestige. Gain is not always as important as it is with us. In modern Germany great prestige has usually attended achievements in music; in modern Britain, the achievement of parliamentary power, in India, the achievement of sainthood. All of these are generally looked upon with interest or admiration by most human beings, but the relative importance or unimportance of such types of achievements, relative to the acquisition of wealth, is sufficient to remind us of the staggering differences between different cultures, and in different phases of the same culture, regarding the relative emphasis upon different goals

Power likewise is seen in germinal form in early childhood. Indeed, resistance to constraining movements is seen at birth. Rage or "aggressive behavior" results when there is a restraint upon movements of head, arms, or legs. There is much "frustration-aggression" behavior (Dollard, *et al.*, 1939) when goal-seeking activity is blocked, and aggression is often directed against the source of the frustration. If the activity drives mentioned earlier are really important, any interference with activity is a frustration, and the counter movement may well enough be called aggression Sometimes the aggression is limited to the muscle groups which are involved in the interrupted activity, muscle groups which have been impeded in their action; sometimes the effect spreads to other muscles, and the whole individual may bang his way through the obstruction; sometimes the energy spills over into the autonomic system, and the typical rage pattern described by Cannon (1929) appears. All this is clearly relevant to the development of the power motive.

Power, however, is evident also from the very beginning in the sheer *exercise* of the musculature, the senses, and the body-as-a-whole without any evidence of frustration One *rejoices as a strong man to run his race.* The baby also enjoys a roll-over, push-me-pull-you kind of game, or creeping towards a goal, or even creeping for the sheer fun of it These are, in a sense, power expressions. Inevitably they involve some dim awareness of what one is able to do in contrast to what one could not do at an earlier time, or what one was blocked a minute ago in trying to do. There is likely to be a primitive, narcissistic satisfaction in the exercise of power. This is a way of saying that just as the gain and prestige motives tend to be bound or fused together, so also do the prestige and power motives.

Prestige and power problems in very early childhood are evident in the battle with the restraining figures, especially the parents, over objects to be had, privileges to be obtained, training to be submitted to All these lead to an awareness of comparative strength, lead to the conception of a tussle for power in relation to specific bones of contention and, more broadly, to the right to be oneself. At this point, power, which was earlier simply the thrust of the individual against obstacles, becomes a struggle for relative control of the situation in the competitive atmosphere of the home or school or playground, and success in achieving power enhances the self. The struggle for power, therefore, automatically results in the acquisition of prestige, specifically a new status, insofar as one finds oneself in a weaker or stronger position after the battle. This means that one gains both the object for which one fought, and also the prestige of victory. The child who struggles for an object or a privilege which he has been denied is therefore struggling for three things: the object itself, the prestige which this will add to his self-image, and the power which may be used in relation to the authorities on subsequent occasions.

If these illustrations from the nursery and the world of parent-child relationships seem a little too obvious to be of direct importance to the affairs of state, it is perhaps sufficient to note that industrial tycoons and prime ministers likewise compete constantly for material goods, for prestige, and for power, that the loss of a position in the corporation or in the national State entails simultaneously losses on all three lines. These relationships are built into our society. As the officer goes up in rank he goes up in income, in prestige, and in power. The same is true of the clergy and their bishops; true of instructors, department heads, and college presidents. The advanced societies, without

exception, are rigged in such a way that the three motives are more or less intertwined, but in our own society they are intertwined in special intimacy.

One reason for this is that even if these intertwinings have not occurred as a result of the processes already described, they are bound to be interrelated because any one of them can be used to buy the other two. The coal magnate who wishes to be known as a patron of the arts may erect an art museum, essentially a flattering statue of himself; the financier may have a college or a fellowship named after him, or may buy his way into a controlling position in politics Power is constantly used by the "great" as a way of enhancing status; one "throws one's weight around" Power is likewise often directly used in the acquisition of material gain, the "big shot" becomes the "big-time operator." Prestige likewise can command cash; one's recommendation of a toothpaste or a beer converts the prestige into monetary value. And from campus politics to those of the nation, prestige is easily siphoned into the power system.

"Selfishness"

In order to gain perspective, we have postponed to this point the universal question whether "all motivation is selfish." There is no more fundamental question about motives than the question whether they are ultimately self-seeking. The midnight discussions of college students in quest of a philosophy of life are likely to be dominated by the idealist and the cynic, the former insisting that life must be centered in the group, the latter that the individual can only take care of number one, the former insisting that a good life is the life of giving, the latter insisting that one seeks only one's own welfare. The social philosopher presents us with the same antitheses.

There are three prevailing views regarding the role of social versus individual motivation — views defining the ways in which individual satisfaction may be derived from observing the satisfactions of other individuals. First is the classical doctrine of self-seeking, admirably phrased by Thomas Hobbes a man is naturally preoccupied only with his own needs, but is forced by the exigencies of life to accept a sovereign, an authority which will inhibit his own predatory activities towards others and in turn protect him against the dangers which their predatory impulses present to him. It was from this sort of doctrine that the pleasure-pain philosophy of the economic man gradually developed, to the effect that all economic, indeed all social and political, behavior is ultimately self-centered. This is the view which in its systematic form characterizes the utilitarians from Jeremy Bentham (1789) onwards, but it is found in one form or another today in the thinking of most practical people who attempt at all to philosophize about life. They admit, of course, the reality of the generous impulses, but insist that the generous impulses arise from the hope of equal or greater return later.

The second view is to the effect that human beings at birth are ready to be molded in almost any direction, may become group-centered just as easily as they may become self-centered. This is not to deny that satisfaction for the group's welfare is ultimately experienced by the individual member of the group, but it puts the emphasis upon social experience and social training — training to the effect that it is group welfare that counts. As a matter of fact, this is integral to the Marxist conception as well as to the Christian conception of the normal and the good in human nature. It is just as natural, given a certain favorable social contact, to struggle for the welfare of others as for one's own welfare. The isolation of the individual, his quest for personal gains and personal protection against adversity, is conceived to be merely a function of an individualistic competitive society, rather than an intrinsic aspect of human nature.

The third position is that to which John Stuart Mill (1863) finally came: that the individual in his quest for satisfaction can identify with and be one with the members of his social group, and may actually derive joy in and through the joy of others. This third view can, as a matter of fact, be reconciled well enough with the essential emphasis of the first view, and can without very much trouble be reformulated to admit most of the points suggested by the second view. Elaborating this third view, and borrowing something from psychoanalytic language, we should achieve the following conception of the capacity of man for "unselfish" behavior characteristic of much ethical thinking from the time of J. S Mill and onwards:

The tiny infant who has as yet no "self" is guided largely by the pleasure principle, by satisfactions and by the consequences of frustration. The earliest phases of experience with the mother and with other persons who enhance the infant's life lead to primitive affec-

tion, out of which at a later stage sexual, maternal, and other types of specific affection are derived. As the self develops there is identification with other persons in such a way that injury to them is injury to us. In his studies of sympathy in small children Boeck (1909) long ago collected a wide variety of cases of deep sympathetic concern on the part of small children with the sufferings and injuries inflicted upon other human beings and upon animals. L. B. Murphy (1937) showed that responses of this sort are normal and fairly common among nursery-school children in our culture, and anthropological observations (Mead, 1937) suggest that they are found very broadly in human life. The primitive, impulsive outpouring of affection fuses with the affectionate or generous behavior based upon identification. There are qualitative variations and quantitative differences in the form of sympathy, but sympathy is a powerful motive. If we ask whether such sympathy is basically "selfish" as defined in the first of the three positions quoted above the answer will be affirmative in a formal sense, if one means that all such impulses are brought into relation to the self. It will at the same time become evident, as James (1890) made clear in his discussion of the "expansion of the self," that this is because the self comprises all the precious things and persons who are relevant to an individual's life, so that the term selfish loses its original connotation, and the proposition that man is selfish resolves itself into the circular statement that people are concerned with the things that they are concerned with.

This middle ground, based upon genetic considerations and recognizing the relative truth of both the individualistic and the socially centered conceptions of human motivation, is nevertheless worth "spelling out," partly because the modern liberal and social science world is likely to entertain a somewhat oversimplified and overoptimistic conception of man's capacity for generous and cooperative social living. Simply because we are reacting against an age of cut-throat competition and many extravagant excesses of irresponsible individualism, we are likely to come, all too easily, to the conclusion that it is easy and natural for human beings to overcome their ordinary selfishness, easy and natural for society to provide an educational system in which the good of the group as a whole is the universally accepted norm. As a matter of fact, the limitations upon the process of identification means that only through a long and carefully engineered educational process can this sort of group orientation be reached This has beeen an effort of Basic Education in India (Aryanayakam, 1949), progressive education in the United States (Dewey, 1902) religious education (such as that of the Society of Friends) in many parts of the world, and of many nineteenth-century idealistic educational efforts to bring up the child in a world of concern with the larger group life. It must be admitted that all these efforts have, in general, fallen very far short of the mark. The social psychologist, with his tenderhearted and humanitarian concern for the good of all, is likely to be tempted to accept much too simple an explanation of the failure. As Lewin (1948) made clear, democratic living is hard to learn, and there are many regressions from it. The naive hopes of the Soviet Union in 1917 for the rapid development of group-centered thinking, so evident in many of their publications in psychology and education during the twenties, ended in the discovery that it was by no means easy to center the child so fully upon group goals as to make him unheedful of his own personal advancement. A much-quoted study by Jerome Davis (1927) stressed the fact that most Russian children in the twenties gave manual labor and agricultural labor a position of high prestige. When the vocational choices of Russian children were studied empirically, however (Arkhangelskii, 1928), it was discovered that practically all of them were struggling to achieve positions where monetary rewards and prestige and power rewards would be substantial. This, of course, may be because they came from the social background of the old bourgeois world Yet today, thirty-five years after the Revolution, individualistic rewards, citations, badges, honors, etc , are of enormous importance.

While group goals can indeed be achieved and are magnificently worth achieving, there is a long, hard process to train the individual into this kind of extension of the self. Among religious and Communist groups with high morale, we sometimes find it in many individuals. In the theocratic Hutterite communities of the midwest, in some of the kibbutzim of Israel, and in some militant Communist groups (Diamond, 1936) there is evidence that the task can in considerable degree be accomplished. But close examination of the pattern of motives involved, as in some studies of the kibbutzim, and Krugman's (1952) study of ex-Communists suggest that we are very far from understanding their successes and the critical factors that distinguish them psychologically from the more general failures.

The theory of social motivation which began

with a few notes on the physiology and classification of motives has gone on to consider the influence of the more elementary learning processes, the "derived motives" which appear in consequence of such learning, the conflict of motives, and the role of self-awareness in ordering the motives as a whole into a motivation system concerned largely with self-enhancement and self-defense. Is the theory adequate? Is it a closed system, a coherent, solidly built system, ordered in the manner of geometry? Can the concepts of conditioning, association, canalization, dominance, conflict, self-awareness, hierarchical structure, take account of all the facts? The answer to all these questions is no. Consistency, in the sense of avoiding contradiction, it aspires to achieve. But it is an "open" system, into which new ideas may flow, with consequent modification, growth, and better adaptation to its "environment" — the thought of the social psychologist.

Individuality in Motivation

While problems of individuality in motivation are treated elsewhere in this volume, something more needs to be said here regarding individuality in basic makeup and in the process by which motives are elaborated.

The raw stuff of human motivation sketched above is subject to very wide individual variations from person to person. The failure to recognize this point in the modern era has been due largely to the false dichotomies set up in the nineteenth century between hereditary traits and acquired traits. This was a natural kind of dichotomy before the nature of genetics and of embryonic growth was understood. Within the last few decades it has been shown by geneticists (Sinnott and Dunn, 1939) that many genes, rather than a single gene, are involved in the determination of the embryonic growth of most structures and functions which are of any importance; it is no longer useful to apply a simple Mendelian formula to most inherited characteristics. And it is not only anatomical structure that is inherited. Animals and man inherit not only hair, feathers, and brain, but likewise biochemical dispositions, as shown in various types of constitutional disease which affect the central nervous system, and they also inherit very complex attributes of the central nervous system itself. The nervous system (the genetics of which is beginning to be understood) is sensitized biochemically in the course of its development along lines of specific readiness for response in one direction or another. The result is that one finds it quite easy to breed animals not only for coat color and shape of teeth, but likewise for timidity and boldness (Hall, 1938) and a variety of other behavior patterns. Likewise, the human young at birth show their mammalian ancestry not only by exhibiting a wide range of positive and negative responses, but also of varieties of temperament (Murphy, Murphy, and Newcomb, 1937), just as is the case in other mammals. Within recent years the powerful statistical instruments necessary for the purpose strongly suggest that a complex genetic pattern underlies the development of temperament and of tendencies to neurotic difficulty (Eysenck and Prell, 1951). Each drive, if it depends on the tissues — whether of the viscera, or of the striped muscles, or of the unstriped muscles and endocrine glands, or of the central or the autonomic nervous system — will have its own relative threshold, its relative warming-up period, its own maximum, its own tapering-off process; and the tendencies of the tendencies, and the disposition to learn in one way or another, are behavior expressive of the potential which the genes represent.

But since growth is dependent upon the way in which the particular individual is molded by a particular environment, it is not appropriate to say that any functional characteristic is solely a function of the genetic strain, just as it is equally inappropriate to say that it is learned The learning process can act only with material already given in the body, and the material in the body can become human only when it is acted upon by cultural pressures. Moreover, the learning process is highly individualized, not only for genetic reasons but for reasons given by the environmental opportunities permitting conditioning, extinction, canalization, identification objects which are easy or hard to group, to love or fear, to use in the fulfillment of one's needs; conflictful or conflictless individuals or patterns of values to be assimilated; pats on the back, kicks in the teeth, that guide the form of the narcissistic, or aggressive, or escapist tendencies. Consequently, each individual emerges with a very complex pattern of individualized personality characteristics. Among these the social determiners are well marked, depending on family, community, and culture. Social motivation is not something available in Sears-Roebuck form to all members of the human species.

Moreover, the advent of symbolic ways of liv-

ing modifies the motive system more in one individual than in another, and in different ways from person to person. Motives are cross-connected with one another by various procedures (e.g., rage becomes associated with guilt and fear), probably depending upon the general properties of the central nervous system and likewise upon cultural factors, such as the consistency or inconsistency with which two or more motives are brought into operation at the same time. Some cultures seem to have the knack of producing maximal conflict in the young, while others seem to have the knack of avoiding it. Some try to make children self-assertive (show how "smart" they are) and deferential (observe proprieties) at the same time, others provide a time for unlimited self-assertion, and another time for unlimited deference. When the awareness of self becomes a cardinal problem in development, the factors which lead to the sharp delineation of the self, and the factors which lead to the development of love for the self, again reflect both individual growth and social pressure, and the resulting complex system of techniques for enhancing and defending the self becomes evident in clinical case studies. Individual proneness to one rather than another defense mechanism is recognized as a working principle in Freudian theory, and some experimental evidence exists that in the young adult different emphases, different preferences among the various defense mechanisms, are to be found (Rosenzweig and Sarason, 1942). Individual differences in status strivings or achievement drive, under intense investigation by McClelland and collaborators (McClelland, *et al.*, 1949), are one example of such drives oriented with reference to the self.

In addition to all these aspects of individuality, which are directly suggested by the material which has gone before, there are many "personality dimensions" now known to clinical and experimental psychology which, while ordinarily not included in the realm of motivation, are highly pertinent to the present discussion. Consider, for example, the concept of energy level. The newborn differ hugely in their activity and passivity, their readiness to respond or their willingness to be inactive (Fries and Lewi, 1938). Indeed, activity and passivity are among the most obvious phenomena to observe in infant growth studies. Energy level or general activity level is probably of considerable importance in the developing patterns of aggression, ascendance, cooperation, sympathy, and the readiness to develop "coping techniques" when threatened or frustrated. Many of the temperamental variables having to do with cheerfulness, despondency, changeability of mood, etc., are the very stuff of which individuality in social motivation is made, operating probably by lowering thresholds for the elicitation of one or another motive, or possibly being, in fact, the same phenomena under different labels. We may quite possibly discover that the temperamental characteristic of timidity is simply and solely a matter of low thresholds for fear; or we may discover something more diffuse by way of personality predisposition which underlies diffuse timidity, and the related but not identical factor of low thresholds for startle or other fear stimulation.

Another system of personality dimensions which is highly pertinent with reference to individual motivation is that which has to do with ways of apprehending or "coming to terms" with this complicated world. We may think here of the experimental program of H. A. Witkin (1954) and his collaborators, which has studied response to the complex task of identifying the vertical in a dark room when one's chair, or one's visual field, or both, are tilted. One succeeds well or badly by virtue of a complexity of personality attributes which can be well appraised by clinical interview and projective tests. In fact, these experiments show that it is possible to make a personality assay which determines rather well the cognitive makeup of the individual, so as to predict how well he can adapt to this novel and complex experimental task. The personality variables which are relevant here are practically all derived from our knowledge of social motivation. They deal with such attributes as awareness of self (defined clinically in terms of knowledge of what is going on inside one's own person) and adequacy of coping techniques in the face of frustration and difficulty, habits of identifying with other persons or isolating oneself from them, techniques for handling blame and guilt, etc. Almost the whole gamut of clinical psychology is to be encountered in the battery of procedures developed in Witkin's laboratory, and almost everything which is systematically used turns out to have some relation to this complex perceptual task. Indeed, one begins to wonder whether there are any perceptual tasks, or indeed any tasks at all, in which individuality in social motivation is not expressed.

Similar evidence has come from the experimental work of G. S. Klein (1950) and his collaborators, who have shown that such dimensions as sharp focusing (exclusion of the irrelevant), fine grouping (making up a large number of distinct categories rather than being

satisfied with a few categories in which to place miscellaneous objects), and leveling and sharpening (disregard for, or emphasis upon the differences between a new stimulus and the stimuli previously encountered), all appear to be generalized and stable personality attributes. If, as is very likely, these ways of coping with perceptual tasks reflect in some degree techniques of defense or self-enhancement, or ways of coming to terms with the environment in such a way as to minimize its threats, we should expect that the social history of an individual in a complex culture would offer the main explanatory concepts.

As MacKinnon (1946) suggested a few years ago, we are watching the coalescence of clinical and social psychology. We are beginning to learn that the behaviors, the personality phenomena, which have to be understood are the same in the two fields, and that they differ only with respect to tools to be emphasized and practical steps to be taken with regard to individual responses to social situations. From this point of view all that we know about individuality as observed clinically becomes relevant to social motivation. If, moreover, the laboratory can be more and more effectively used, as is suggested by these studies of Witkin and Klein, we may find that the increasing volume of experimental work in clinical psychology will become more and more pertinent to the understanding of individual patterns of social motivation. Sometimes the behavior of the marketplace becomes more intelligible as clinical and experimental studies are pursued. Sometimes, on the other hand, the marketplace confronts us with problems of individuality in human interrelations which will define problems for clinical and experimental study.

As a matter of fact, almost every careful clinical history suggests this kind of interweaving of determining factors in the case of each motive of a dependent child or obsessive parent. The clinician has often been able to verify much of this. The social psychologist, however, being more remote from the theme of rich individual variability, is likely to say simply "culturally determined" and pass on to the next problem, without due attention to the individual pattern expressed in every type of social motivation. The individualized pattern appears, from the present viewpoint, as the substrate which underlies most of the visible patterns of social response about us, treated by clinical, by political, and by general social psychology and reappearing in hundreds of different response phenomena treated in this volume.

A Concluding Note

As our story nears its end, we may summarize the main points that we have tried to make: (1) all behavior seems to be motivated, and all the tissues of the body seem to be important in motivation; (2) motives may be classified in terms of the more obvious classes of satisfactions (visceral, sensory, etc.) to which they are directed; (3) motives are attached by the learning process to specific objects, and integrated into complex patterns as social development goes on, (4) conflicts between motive patterns result largely from the fact of "investment" (cathexis, canalization) upon incompatible goals; (5) social motives all relate in some way to the awareness of the self and the need to enhance and defend the self; (6) the strength and form of social motives is a highly individualized matter.

Most psychologists like to play this sort of analytical game. But most sociologists do not. Many will respond to the chapter along the lines mentioned above: "Why all these 'drives'? What do you gain by formulating elementary components? Why not simply show the *cultural* determinants of all these observed motives?" Let us examine this point of view further.

The conception of the almost limitless flexibility of human nature has been encouraged greatly by the observations of anthropologists, who have taught us to be skeptical regarding the picture of a uniform essential nature. Our psychological methods of analysis have arisen in the western world; anthropologists offer observations which appear to suggest that very different kinds of human nature can be organized and cultivated in different cultural areas Quite aside from what the anthropological observers themselves have to say, which is often more cautious and critical than what their readers have to say, there seems to be much to suggest that people may become almost *anything*. Human beings may be essentially gentle and cooperative, like the mountain Arapesh described by Margaret Mead (1937), or savagely competitive, like the Manus of the Admiralty Islands; they may be intensely individualistic, like the plains Indians described by Ruth Benedict (1934), or intensely group-minded, like the Pueblo Indians of the Southwest. Indeed, in Benedict's words, the same biological stock may through historical processes develop into the direction of an almost pure *Apollonian* devotion

to order, symmetry, grace, and serenity, or in the direction of *Dionysian* excitement, violence, and orgiastic frenzy. What would be left of the theory of the aggressive drive if aggression should be found to be wanting among the Arapesh or among the Pueblos? What would become of the primitive outreaching affection, conceived to be characteristic of all human nature, if it should turn out to be wanting among the individualistic warriors and boasters of the Great Plains?

Actually, it seems from the vantage point of 1954 that these anthropological studies have been much overinterpreted. Violent as well as sympathetic behavior appears among the Arapesh. The Pueblos, Goldman (1937) tells us, can be orderly and cooperative, but often only at considerable inner cost of wear and tear which occasionally shows itself in backbiting. This stress reaches dramatic expression in the lashing of the little boys who undergo the initiation ceremonies. The Indians of the Great Plains were far from lacking in generous group life. The gamut of human responses appears in all these societies There are differences in accent, sometimes understandable in terms of the "economic base" of life, like buffalo hunting and war in the case of the Plains Indians, agriculture and the rearing of flocks in the case of the Pueblos. Moreover, individuality among the members of all such groups is regularly reported by anthropological observers and emphasized by many. As in so many other cases, many psychologists were caught for a while in a dream induced by the fascinating nature of the new material, for which they had no adequate conceptual framework, and sometimes by the desire to separate the social life of man as widely as possible from the life of his humbler brethren of the mammalian genera. But life history material, so systematically and beautifully ordered for us by many an anthropologist today, as in the autobiographies presented by Cora DuBois (1944), shows the range of tenderness and violence, humor, pathos, irritability and resignation, readiness to lead and readiness to follow, which we find in similar documents from our own society. Men do not behave like cedars, earthworms, cats, or elephants; they behave like men. All cultures work with raw human material; in every culture the educative process fails when it stretches human nature too far. We are very flexible, but not putty for the window mender, nor clay for the potter. When one starts with the individual personality, any theory regarding the cultural differences of different groups must ultimately be conceived as a difference in the way in which the structural relationships of needs in individual members of these groups are developed by the culture. If it is true that a social group is warlike, then war must be a component in the value pattern of the individual reared in that culture and functioning as its representative. This is not to deny the very important problem of institutional patterns in each society and the utility of alternative ways of conceptualizing the problem. It is only to say that from the conceptual standpoint of psychology, the theory of social motivation, whether applied to historical periods or to existing societies, must be based upon a study of individuals and their distinctive patterns and emphases in respect to the fulfillment of drives.

There are, of course, excellent ways of organizing the data of social motivation from other vantage points. Only one will be indicated here, simply to show that for convenience one may slice through the complexities of human social patterns in very different ways to achieve very different purposes.

If one takes an evolutionary point of view regarding the development of human life upon this planet, and in the broad sense an evolutionary point of view regarding the development of human institutions — that is, a point of view in which there must be adaptation to the physical environment, to other human beings, and to complex modes of social living which slowly evolve through the elimination of maladaptive and the selection of adaptive responses which make it possible for society to go on — one may begin by asking: What are the functions which have to be carried out in any human society? What are the functions which are added as societies become more complex; functions, for example, related to the division of labor and to techniques of communication, political power, aesthetic gratification, etc.? From this point of view "social motives" are ultimately conceived to be the processes through which those things get done which have to be done. They express the "requiredness" of social situations.

Some illustrations occur at the biological level. The functions of a mother are defined by the first life requirements of the child. Societies cannot function without some mothering activities. Mothering from this point of view is a process required in any on-going social life. Societies are rigged in such a way that women who bear children are maintained in contact with the children, are provided with skills, support, ideas, attitudes, etc., related to the mothering function. Some societies are replete with the preoccupation and idealization of mother-

hood, others give the task hardly more than a lick and a promise, except insofar as a limited and sketchy physical care is provided. The range is tremendous. But the fact remains that there is both a biological and a social requiredness. The fact of variations in societies shows the complexity of the phenomenon of social requiredness. Societies show different degrees of pressure upon mothers and different degrees of success in the cultivation of the mothering attitudes and procedures. This is not to deny what goes on in the endocrine system of the mother, or anything else about her "inside" organization It emphasizes a social definition of the motive pattern.

One may likewise choose an illustration from functions which are not as clearly defined by the sheer necessities of social living. Some societies have a written language; others do not. When written language has been developed, there is a series of "social motives" that must develop and function with reasonable adequacy to maintain the system. Unlettered persons do not, as a rule, have a social motive to "write to Mother on Sundays," nor do those without a printing press have a requirement to "meet a newspaper deadline." One may look at the process of writing as a function required of certain persons, for example, scribes, newspaper editors, and poets, or in some societies as functions which each mature individual of the community is conceived to be ready to perform as an aspect of certain operations, for example, getting a job. Thus if one had an inventory of the activities of the society one would have an inventory of its "social motivations."

Time could be spent just as well in describing social motivation in these terms as in the terms which have been used in this chapter. In some respects the effort would be excessive, since almost all the activities of human societies could be arbitrarily called motives, and after describing a society it might seem tedious to describe it over again in terms of its social motivations. Nevertheless there is a difference between such institutional patterns as, for example, the writing or composing of music, and on the other hand the specific lure, bait, pressure, or coercion which is applied in the process of getting these things done. It might be worth while to describe the requiredness of activities as one aspect of each social activity listed, some activities being more required than others and the requiredness varying qualitatively with the importance of the function to the group life and with the personalities of those who get things done.

Such a method of classifying social motives would begin empirically with the interaction patterns of the society; would describe the roles played by the various groups and individual members of the society, and then proceed, as it were, downward to the individual things that get done and to the specific motive patterns which are involved in the doing. It would contrast with the building up from the individual which has been characteristic of the present approach. One might visualize, perhaps, stalactites and stalagmites in Mammoth Cave, each pointing towards the other. One approach represents the socialization of individual trends in the direction of social interactions; the other would begin with the social interactions and proceed to individual trends. How much this integration of a sociological and a psychological approach would add to present knowledge cannot be guessed until it is tried.

It is earnestly believed by some, both in psychiatry and in the social sciences, that this attempt has already been made, and made successfully. The attempt follows the broad outline suggested by Fromm (1947) and he may serve as anchor for our statement of the viewpoint, although others before him and contemporary with him in psychiatry and in anthropology and sociology have taken essentially the same position. This is to the effect that the raw material of human nature, instead of containing, as James suggested, more instincts than any other animal possesses, is somewhat amorphous and capable of being molded into an infinite and ever-expanding richness and variety of social expressions. The essence of being human is social and ultimately cultural Each generation of interacting human beings develops from the existing cultural riches still further riches. If the term "biological" is used, it comprises not only the instincts in the narrow sense but in the sense of relatedness to other human beings, the need to make contact with them, the satisfactions and fulfillments which come from progressive realization of social potentialities. Just as a group of men thinking together develop a thought product which is not the thought product of any individual — each picking up the suggestions of another, developing them, and being in turn corrected by a third until the group product emerges — so culture develops, on a vast panorama, the deeply latent potentialities of human nature. These potentialities, however, take different forms in different cultural areas and in different social groups, so that in essence the raw primordial stuff of human nature is utterly unrecognizable in the final product.

The conception is stimulating, but must come

to terms with three facts. First, by repudiating the term *instinct* one puts to one side the visceral but forgets the sensory drives, the activity drives, the "tendencies of the tendencies," and all the other rich potentialities for social living which are just as much a part of raw human nature as are the instincts of visceral origin. It is out of the matrix of potentialities that art, science, religion, etc., are derived. Secondly, because derived from material which is essentially human rather than canine, feline, bovine, etc., the ultimate structure is human, in the sense of springing genuinely from the basic *human* potentials and not from potentials which depend simply upon sociality or cultural living as such. Third, there are limitations in human nature often forgotten in the cultural approach. There are kinds of feeling and thinking of which man is essentially incapable. Many of the struggles of philosophy, relating for example to the effort to understand the ultimate, sound like the beating of wings against the bars of the cage, probably because man lacks either the intellectual or the emotional factors, or both, requisite to this kind of ultimate cosmic understanding. Moreover, this conception of the plasticity of human nature forgets the enormous role which still must be assigned to the instinctive activities which man shares with all the higher animals, and which cannot be frustrated without interference with the life process itself. The conception of social creativeness in the making of human nature is profound, but it cannot with impunity formulate a conception which denies the firm and enduring status in human nature of certain deep and undeniable cravings.

A new orientation giving full vitality to the kind of cultural approach just sketched will undoubtedly be developed in time. It can be developed, however, only when adequate attention to the problem of integrating the biological and the social concepts, both empirically and theoretically, is worked through.

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CHAPTER 17

The Perception of People

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The present chapter deals with two traditional areas of inquiry. First, the recognition or identification of emotions in others; second, the judgment or perception of personality. In each case, we shall concern ourselves with studies designed to find out how we perceive or draw inferences about others on the basis of expressive characteristics. Our emphasis will be upon the perception of people as a problem in cognition. How does one come to an impression of another person — his traits, his intentions, his feelings?

It was our original intention to treat this topic in the broader perspective of "social cognition" — placing the "knowing of people" in the wider theoretical context of how we know the environment generally. But because the study of social factors in perception, memory, and thinking is at the present time in such a state of rapid transition it was decided to place almost exclusive emphasis upon the topic of how people perceive and judge other people. There are, fortunately, recent reviews of the broader area of social cognition to which the reader may be referred (Blake and Ramsey, 1951; Bruner and Krech, 1950; Vernon, 1952, and Vinacke, 1952). It is our conviction, moreover, that the problems raised by investigations of how people perceive others are of such fundamental importance as to warrant a special assessment in their own right.

RECOGNITION OF EMOTIONS

To what extent are emotions recognizable by an observer? What kinds of information or cues does he need in order to recognize an emotion? By what process does an observer come to intuit, understand, or infer what emotion another is experiencing? Are some individuals better than others at this activity? This is the order of question to which the present section addresses itself.

TO WHAT EXTENT ARE EMOTIONS RECOGNIZABLE?

Typically, recognition studies involve the presentation of a stimulus (an expression of emotion) to a group of judges whose task it is to label the emotion being expressed. Such, however, has been the variety of stimuli, procedures, and judges used that the results obtained are scarcely additive.

Consider first variations in the kinds of stimuli used. One finds a real person (Sherman, 1927a), a photograph of a person (Darwin, 1872; Ruckmick, 1921; Feleky, 1924, Frois-Wittmann, 1930; Dunlap, 1927; F. H. Allport, 1924; Landis, 1929; Jenness, 1932b; Munn, 1940; Schlosberg, 1952); a diagram or drawing representing a person (Piderit, 1886; Boring and Titchener, 1923); a record of a person's voice (Sherman, 1927b). The emotion being expressed is sometimes caught in its natural state (Munn, 1940; Sherman, 1927a); sometimes purposely produced in the laboratory (Sherman, 1927a,b; Landis, 1929; Coleman, 1949); sometimes "posed" by a person (Ruckmick, 1921; Feleky, 1924; Frois-Wittmann, 1930); sometimes drawn by an artist (Langfeld, 1918); sometimes produced by combining in certain ways interchangeable features of a human face (Boring and Titchener, 1923; Buzby, 1924; Fernberger, 1928).

There have also been several investigations to determine which components or parts of the face contribute most to the recognition of emotions. Many contradictory and inconclusive findings have been reported. Among the more replicable findings are studies showing that surprise and fear seem to be expressed best in the upper part of the face, laughing and smiling in the lower half (e.g., Boring and Titchener, 1923; Dunlap, 1927; Frois-Wittmann, 1930, Hanawalt, 1942, 1944; Coleman, 1949).

It is not surprising, then, that the evidence of the recognizability of emotional expressions

*Much of the work on this chapter was carried out as part of a program of research on interpersonal perception at Harvard University, financed by the Office of Naval Research (Contract No. N5-ori-07646).

is unclear. Some writers have reported chance performances on the part of their subjects in recognizing emotions, whatever the nature of the expressive stimulus (e g., Jarden and Fernberger, 1926; Sherman, 1927a; Fernberger, 1927, 1928; Guilford, 1929, Landis, 1924, 1929, who employed photographs of real emotions elicited in the laboratory). Others have shown that emotional expressions were labelled with considerable accuracy (e.g., Darwin, 1872; Schulze, 1912; Feleky, 1914, Langfeld, 1918; Ruckmick, 1921; Stratton, 1921; Goodenough, 1931; Woodworth, 1938; Munn, 1940). Some (e.g, Buzby, 1924) found that the accuracy depended upon the emotion involved.

Before proceeding to an evaluation of this contradictory evidence, several critical technical points must be considered. Perhaps by elucidating these one may get a better sense of what may lead to correct or incorrect recognition of an emotion.

The first technical problem has to do with the *nature of the discrimination demanded of the subject in the emotion-judging task* To distinguish fear from anger, we may assume, is a more difficult discrimination than distinguishing love from disgust. This is, to be sure, a banal point, but the fact of the matter is that in many studies it has not been taken into account. Thus, in scoring "errors" of recognition various authors have treated failure of discrimination of the one sort as of the same status as errors of the other. The *size* of the error, as Woodworth (1938) has pointed out, has frequently not been taken into account. But in order to determine the magnitude of a discrimination failure, it is necessary first to scale emotional expressions in terms of their relative discriminability one from the other. In principle, there are two ways of doing this. The first is in terms of the physical properties of the stimuli. Illustrative of such scaling of qualitative attributes is the ordering of hues by their wavelength or of pitches by cycles per second. At this stage of our knowledge it is probably infeasible to attempt such scaling, since the physical properties mediating cues to emotion are so poorly understood. The other alternative, utilized by Woodworth, is to order emotional expressions in an array such that one finds maximum confusion between neighboring pairs, with confusion diminishing as one chooses pairs separated by several intervals. If one can order emotional expressions in this way, then it must follow that emotional expressions are discriminable. Woodworth has shown, by utilizing Feleky's (1924) data, that emotions can be ordered in such a scalar pattern. The continuum that fulfills these conditions is as follows: love, happiness, mirth, surprise, fear, anger, suffering, determination, disgust, and contempt. He observed, moreover, that certain portions of the scale were less discriminable than others. Indeed, discrimination between love, happiness, and mirth appeared to be at chance level. By combining the points along the scale where discriminability was at chance, Woodworth was then able to construct a grosser six-step scale where the stimulus expressions (posed pictures) and the judges' responses fell into the following intervals: (a) love, happiness, and mirth; (b) surprise; (c) fear and suffering, (d) anger and determination; (e) disgust; (f) contempt, and (g) a residual category. Using this continuum, Woodworth reanalyzed the published results of Ruckmick (1921), Gates (1923), Feleky (1924), and Kanner (1931), and showed that judgments seldom missed by more than one step. He thus concluded that, as a whole, judges of emotions from posed photographs do strikingly well. Using several sets of posed and unposed photographs, Schlosberg (1952) has recently extended Woodworth's scalar idea, attempting to show that Woodworth's array can be described as falling on an oval plane whose perpendicular axes can be labelled respectively Pleasantness-Unpleasantness and Attention-Rejection. The analogy to the color circle and similar geometric representations is, of course, by intention. Schlosberg obtains fairly good fits of Woodworth's intervals to his oval model

The second methodological consideration is *the nature of the identifying labels that judges are asked to use.* Munn (1940) has shown, for example, that subjects reach higher agreement in judging if they are allowed to use their own terminology and categories. Yet many writers have not asked their judges for free descriptions but have used multiple-choice procedures. There is no reason to assume that different individuals are equally inclined to utilize the same categories for ordering emotional expression. It may be, for example, that an individual who is much preoccupied with fear of social rejection will be sensitized and accurate in perceiving anger and annoyance in others but that he may label such emotion in others as "meanness." The use of the label may even have a defensive significance for him. If such were the case, then it would be misleading to report that this individual did not show much ability in recognizing anger or annoyance simply because he did not label the phenomena in those terms. We feel that it is necessary to carry out studies both in the phenomenology

of emotional expression — i.e., what things different people see as the same emotion — and in labelling behavior. On the latter point it would not be amiss, in our opinion, to carry out investigations of changes in labelling of emotional expressions by children of different ages to better understand the manner in which differentiated verbal labelling develops.

A puzzling problem is raised by the work of Langfeld (1918) and Fernberger (1928) on willingness to accept labels or categories for the description of particular emotional expressions. For example, Langfeld has found that when subjects were asked to describe 105 of the Rudolph picture series (artist's sketches) only 32% of the judgments agreed with the labels given by the artist. If the artist's titles were shown to the subjects, however, with the requirement that they accept or reject the title, close to three-quarters of the titles given by the artist were accepted. If "erroneous" titles were provided, 43% were accepted, although this last finding is not quite clear in its implication, since "erroneous" is a term that needs analysis by means of some such scaling devices as described above.

Woodworth's demonstration that errors of judgment are relative — provided one takes into account the fact that emotions seem to have expressions that are arranged along a continuum, rather than being, so to speak, in separate and *unrelated* categories — seems helpful in interpreting such results. For, if the set of the subject is such that he asks of himself whether a certain pose is a *possible* expression of the emotion referred to by the title, then it is likely that he will find several titles fitting several poses and several poses fitting several titles. But the "error" might, again, not be too great. As Fernberger (1928) noticed, "false" interpretations suggested by the experimenter were accepted *except* when conflicting strongly with the intended expression. Thus, what a given expression *might* signify by way of an emotion is not necessarily the same thing as what it *most probably* signifies. In this sense, the nature of the categories used in judging must be examined from the point of view of the judging set in terms of which they are being used.

Another technical problem requires analysis. The "recognition of emotion" involves the presentation of a cue (i.e., a face in a certain state) and the requirement that the subject indicate what the cue "stands for" in terms of the *internal state of another person.* What is required of the subject, then, is an inference: the solving of a sign-significate relation. The best evidence available seems to indicate that there is no invariable pattern (or at least no innate invariable pattern) of expression accompanying specific emotions. Expression seems to vary with the situation. This means, essentially, that the judge may require more information than is provided by the stimulus properties of a face presented photographically or in a drawing. Thus Landis (1924) found that there was no invariable facial component in his photographic records of psychology graduate students and instructors subjected to varied emotional stimulation. Woodworth (1938) remarks about the above study that there seemed to be a great deal of forced smiling, perhaps as a result of the effort by subjects to prove they were "good sports." One may inquire, then, whether the expression of the emotions being felt by Landis' subjects are not more a social response to a particular emotion-provoking situation than the expression of some presumably innate pattern. If such knowledge were available to the judge, he might be better able to evaluate the misleading cues provided by smiling. Without such information, the smiling is, in essence, a masking stimulus Landis' contention may not apply as well for simple emotions such as laughing and crying For there is evidence that blind children's expressions of these emotions are quite consistent and recognizable with considerable accuracy (Goodenough, 1932; Thompson, 1941; Fulcher, 1942). Admittedly, however, the situations, the methods, and the emotions employed in these studies were, taken together, hardly comparable with the laboratory situations of Landis.

How much information does a person need to infer another's emotions? Virtually all the evidence available points to the fact that the more information about the situation in which an emotion is being expressed, the more accurate and reliable are judgments of the emotion (e.g., Jenness, 1932a,b; Fernberger, 1928; Landis, 1929; Vinacke, 1949; Goldberg, 1951). As Fernberger (1928, p. 567) put it, "If a stimulus situation is indicated, the emotional state is judged in accordance with that situation rather than in accordance with the facial expression." It is worth pausing to examine in some detail what this conclusion signifies for research in this area.

Work in the field of information theory (e.g., Shannon, 1948) indicates that most familiar sequences have about them the characteristic that prior events place constraints on the likelihood of later events occurring. If the sequence of letters ELIZABE** is given, completion of the word by different judges would yield higher agreement for English speakers than it would

if the sequence consisted of EL******* and lower agreement than if the sequence were ENGLAND'S QUEEN ELIZABE**. We may speak of constraint placed on any single item by preceding or contextual items as redundancy. Complete redundancy may be represented as that instance in which, given a certain sequence, one and only one item following it is possible. In terms of the usage common in such analysis, an item thus constrained is said to carry no information or to be redundant. Now it has been shown by Miller, Heise, and Lichten (1951) for words in sequence, and by Miller, Bruner, and Postman (1954) for printed letters in sequence, that the greater the constraint introduced by a sequence or context, the easier or more rapid or more reliable is the task of recognizing the item. Let us return now to the matter of judging another's emotion.

We present a picture of a grimacing face to a subject with the information that the photograph was taken while the subject was viewing a hanging. To another subject we provide the prior information that the photograph was snapped as the subject was breaking the tape in a 100-yard dash. In the first instance the judgment will be "disgust" or "anxiety" or some other appropriate label. In the second it will be "effort" or "determination" or the like. In each instance, prior knowledge has the effect of reducing drastically the number of alternative emotions likely. The expressive face being judged will be related to a likely constraining sequence. Indeed, even if the faces shown in the above examples were smiling, the same constraining factors would operate: in one instance the smile would be seen as possibly "vengeful satisfaction," in the other as "elation," and so on.

We do not agree, then, with Fernberger's conclusion that "the emotional state is judged in accordance with the situation rather than in accordance with facial expression." In the process of categorizing and judging his environment the individual generally does not deal with discrete events but rather extended *sequences of events*. Facial expression is one aspect of the sequence being judged. Indeed, it is thanks to the context provided by larger sequences that we are rarely left in a state of confusion about whether it is mirth, love, or happiness that is being expressed — although we would be confused, as previous work has shown, if *no* context were provided (see Woodworth, 1938, Chapter XI).

Hebb (1946) has made the point that an important cue for judging emotion is knowledge of the baseline state of expression preceding the emotional expression being judged We should like to suggest that this is still another instance of constraint by context Expressions do not turn into each other in random order A smiling face following a grimacing one represents one cue sequence (perhaps "relief"); a smiling face following a rather calm, expressionless one is quite another kind of cue (perhaps "pleasant surprise").

Again, the cultural stylization of emotional expression and the recognition of such stylized expression represent still further instances of the importance of context and constraint. Klineberg (1940, p 172) reports, for example, that the young Chinese girl is admonished, " 'do not show your unhappiness easily and do not smile easily — and do not let your teeth be seen when you smile!' " Adams (1937) has noted the reduction in inhibition of emotional expression in comparing Hawaiian Japanese with Japanese from rural districts of Japan whence many of the former group originated. Labarre (1947) provides many instances along the same lines In short, certain ways of expressing a specific emotion as appropriate for a situation are learned in the process of living in a culture. The learning operates not only for the expressor but also for the individual who must judge the emotional expression. It is by such learning of larger contexts that the happy Chinese girl is seen as "happy" by her fellow-villagers and as "shy" or "blank" by Western Europeans.

There is another technical point that deserves serious thought, namely, the *variability with which different individuals express the same emotion* This important matter has been given little empirical attention in studies of recognition. In fact, most investigators seem to have gone on the implicit assumption that the stimuli they used (faces in one form or another) *are* representative of the intended emotion and let the matter go at that This observation applies to inquiries using posed "expression" (Feleky, 1914, 1924; Ruckmick, 1921, Kline and Kline, 1927; Frois-Wittman, 1930) photographs and movies of laboratory produced emotions (e g., Coleman, 1949), and cases where genuine emotions were recorded by "candid" photography (e.g., Munn, 1940). In each of these instances the number of different faces used as stimuli for different emotions was very low, rarely more than one or two

Brunswik (1947) has criticized these procedures severely for violating principles of good ecological sampling. He notes that whereas most investigators attempt to get a representative sample of observers in experiments on so-

cial perception, they make no effort to sample the stimulus persons or stimulus faces they present to them for judging.

In view of Landis' (1924) finding (modified by Davis, 1934) that subjects exposed to the same emotion-evoking stimuli show low inter-individual consistency in mode of expression, it seems to us that a failure to sample various modes of expressing an emotion is a serious matter. If there is no "standard" expression for mirth, for example, then the use of only one or two faces expressing mirth in a recognition test must surely violate the canons of proper sampling method.

After considering the four technical problems — the nature of the discrimination demanded of the subject in judging emotional expression, the nature of the categories or labels in terms of which emotional expressions are to be sorted out, the nature of the constraining information provided the judge, and the problem of sampling emotional expressions — we return finally to the question "To what extent are emotions recognizable?" We must come to the chastening conclusion that the literature is sufficiently haphazard to preclude a simple answer to this question. It depends on the difference in the emotions being expressed, upon the number and kinds of categories in terms of which judgment must take place, upon the amount of contextual information given the subject. That one can provide a multitude of situations in which accurate and consensual judgments can be obtained — of this there can be no question, if ever there was one. Whether one can judge emotions accurately in situations where all information has been withheld save for that provided by a still photograph of a face, again the answer must carry dependent clauses. As we have pointed out, Woodworth (1938) shows that if different enough emotional expressions are used, then subjects can do far better than chance.

All in all, one wonders about the significance of studies of "facial expression of emotion" in isolation. From the point of view of the adaptiveness of social behavior, it is rare to the vanishing point that judgment ever takes place on the basis of a face caught in a state similar to that provided by a photograph snapped at 20 milliseconds. Historically speaking, we may have been done a disservice by the pioneering efforts of those who, like Darwin, took the human face in a state of arrested animation as an adequate stimulus situation for studying how well we recognize human emotion. If research on this topic is to be revivified, it is plain that a more catholic view will have to be taken about the nature of the cues we use in judging whether a man is sad, in pain, grieved, or in love (cf. Hebb, 1946, pp. 104f.).

WHAT CHARACTERISTICS OF A JUDGE AID IN THE RECOGNITION OF EMOTION?

The first question one must face here is whether the capacity to recognize emotion is "innate" or "acquired." That there is evidence of very early ability to distinguish certain "emotions" in others is incontrovertible. The fact that young babies can be made to cry by a contorted face made by the mother indicates certain primitive discriminative capacity. Indeed, Hebb (1946) has shown that chimpanzees can be precipitated into a fear reaction by presentation of an unusual mask. Yet there is little evidence that discriminative capacity goes much beyond such a primitive level in the young baby. Bühler and Hetzer (1927), Hetzer and Tudor-Hart (1927), and Buhler (1930, 1933, 1935) have shown that there is a striking lack of specificity in the stimuli capable of evoking a smile in the baby (even scolding may evoke a smile). Bühler concludes that recognition is not present at all in the first few months of life, but appears only later. The findings of Spitz (1946) put the matter of discrimination of facial expression in a different light. He centered his attention upon the smiling response in the infant and the conditions producing it — primarily those conditions having to do with the presence of another human being Up to two months of age, a human face does not produce a smiling response in the baby. From about two to six months, the presence of any human face in full frontal view evokes a smiling response — whether the presented face is smiling or threatening. Even a mask will evoke the response, as well as a strange face the infant has not encountered before. After six months, the smiling response becomes increasingly discriminative and only a familiar face has the capacity to elicit a smile.

From Gates' (1923) study we learn that as far as judging emotions expressed in posed photographs (Ruckmick's series) is concerned, children improve in their accuracy with age, and that recognition of different emotions becomes possible at different ages (confirmed by Kellogg and Eagleson, 1931). Using a criterion of 50 percent correct responses, Gates found that children of three years of age could recognize the poses for laughter; recognition of pain, anger, fear-horror, surprise, and, finally, contempt followed in steps of about two years, recognition of contempt reaching the criterion at

14 years of age. Contempt is hard for children and easy for adults to recognize. Laughter is easy for both children and adults. Again, the cautions suggested in the preceding section should be applied in evaluating these findings.

A conservative interpretation of these observations would be that only the expressions of the grossest forms of emotional reaction are recognized on the basis of innate capacity, and that discriminative capacity develops only with the social experience of the individual. One source of support for this interpretation comes from the work of F. H Allport (1924) — confirmed by Guilford (1929) but questioned by Jenness (1932b) — who found that subjects could be trained to improve their recognition of emotions (Rudolph pictures). The worst judges improved the most, the best, least. F. H. Allport concludes that "while there may be innate differences of a general sort in the sensitivity required to learn facial expressions, the broad differences between individuals in this respect are due to differences of practice in reacting to the expressive criteria" (1924, p. 228). His results, on the other hand, may be due to a statistical regression effect well known in studies of judgment.

That the state of the judge may have a profound effect on his perception of emotion is, of course, a truism of psychopathology. The paranoid patient sees others as snubbing or rejecting him The latent homosexual may see others as making advances. The young girls, subjects in Murray's well-known experiment (1933), see faces as more malicious after indulging in a game of "Murder."

There appears to be abundant evidence in the literature that the ability to judge the facial expression of emotions as represented in such drawings or pictures as the Feleky, the Ruckmick, and other series is correlated with test intelligence. Gates (1923), Kellogg and Eagleson (1931), and Kanner (1931) have all reported studies indicating moderate correlation. Indeed, Moss and his co-workers (1927) were sufficiently convinced that this ability is correlated with social intelligence that they have included a series of facial expressions to be recognized in a test of social intelligence. Perhaps the safest conclusion to draw from this work is that the more intelligent utilize cues more efficiently for making inferences about the states or conditions of things. Whether this capacity to draw inferences on external signs holds uniquely for judging emotional states in still pictures or whether it is a general characteristic of intelligence remains a moot point. One would want to compare ability to infer emotion with ability, say, to infer what is going on in a pictorial scene — what the characters portrayed are doing One might well suspect that the two kinds of activity might be highly related.

As to sex differences, the literature is somewhat contradictory. F H. Allport (1924) and Guilford (1929) have reported no differences in judging the Rudolph pictures. Jenness (1932a), using a larger sample, obtained superior scores for women. Kanner (1931), using the Feleky series, found that men excelled slightly. Fernberger (1928) adds to the neutralist position a study indicating no sex differences on the Boring-Titchener model, although Buzby (1924) has shown that women are superior on some of the faces in this series. Coleman (1949) reported no sex differences using movies of laboratory elicited emotions. Vinacke (1949) found that women show slightly better *agreement* as to the emotion expressed As Jenness (1932a, p. 339) concluded in his careful review, "The net results . . . would seem to indicate that women slightly excel men as judges of facial expression of emotion."

Although there is no treatment of the topic in the literature, it would seem that one of the critical factors affecting a judge's ability in recognizing emotions through their expression would be the ability to break through the camouflaging effects of convention and politeness. One person is able to "see through" a strained smiling face, another takes any smile as directly indicative of an internal state of joy. It does not do to take an attitude of hauteur toward common-sense observation simply on the grounds that psychologists have not concerned themselves with experiments on this problem. The dramatic device of the mask, say in *The Great God Brown* by Eugene O'Neill or in the metaphorical usage of Pirandello's *Henry IV,* perhaps leads to more hypotheses about this problem than does an examination of most of the traditional literature in the field. Nor is this remark intended to be derogatory. The fact is that there are those within our society who have concerned themselves for a lifetime with the nature of knowing a fellow man's state in spite of his best efforts at social concealment. We would do well, perhaps, to look more carefully at the insights of the dramatists and poets — if only in the spirit of searching for ideas to test. The achievements of professional psychologists in this field provides little justification for creating barriers against "outside ideas."

Forming Impressions of Other Persons

What one notes about one's fellow men varies, of course, with the culture As Hallowell (1951) points out, the Ojibway male apparently remarks first whether a woman is a totemic sister (and sexually taboo) or not We may perceive first a person's general dress, his seeming directness, or his warmth or rejectingness Culture and the demands of the situation are of critical importance If the context is occupational, one notices goodness or badness as a yam picker or as an experimental physicist If it is sexual, other characteristics become salient.

So too the variables inferred — the layman's typology or conception of "dynamics." In our culture inferences concerning "honesty," "sincerity," or "gentleness" may quickly emerge upon the perception of certain behaviors. In another culture, other typologies are used perhaps, as in certain Southwestern Indians, whether the person has or does not have witchcraft powers.

Inevitably, it would seem, the characterological categories in terms of which people are distinguished become represented in language Terms are invented and wax and wane in their usage. Often, when the dictionary provides no appropriate term, slang fills the gap. words like "drip," "icky," and the like appear.

There are few if any careful studies of the kind and frequency of usage of trait names in different societies Indeed, within our own culture, much can be done and would be worth doing on occupational and class differences in nomenclatures of personality — if only by a study of the frequency and usage of personality terms.

The selective effect of role relationship upon our perception of others is also worth noting. One does not see and assess one's parents in terms of the same dimensions reserved for friends, what we look for in our own children may differ from our way of looking at children in general. Moreover, the inferences about personality drawn from our observations differ as a function of the roles of the individuals involved. "Highbrow" behavior in a white man and in a Negro may not lead to the same inference about the person. Bantering behavior in a child leads to one inference when it is directed toward an adult stranger, another when directed toward his father.

The internal state of the perceiver is also of utmost importance. A person in a state of fear or insecurity may not perceive behavior or draw inferences in the same terms as one who is in a relaxed and secure state. We may be predisposed to perceive selectively the behavior of another and to infer his "character" or "intentions," in a manner congruent with our own needs.

Finally, there is undoubtedly a powerful factor of realism involved in perceiving another's behavior and in forming impressions of his "personality" or inferring what he is likely to do next. We may either think of this factor as "the contribution of the stimulus" or as the result of learning Undoubtedly there are certain features of human behavior — viewed now as a stimulus affecting another organism — that provide reliable cues to a very inexperienced organism. A quick lunge with intent to injure is reacted to "as if" it were categorized as a noxious stimulus even by a young child. Over and beyond this primitive level, there is much learning involved before man learns how to organize behavior perceived sequentially in a manner that will permit reliable and consensual inference. This learning occurs in a cultural context certain sequential patterns are singled out and labelled and taught to the growing child as useful discriminations, others not. Once cues are learned, once the growing organism learns to organize sequences of behavior in certain ways, then we may speak of the constraining effect of the stimulus. When the "stimulus" becomes dominant in this way, then we may assume that new expectancies, needs, and other factors have less of an effect in varying either perception of behavior or the process of inferring the internal state of others

EARLY STUDIES ON "JUDGMENT OF PERSONALITY" AS ANTECEDENTS

A number of trends have merged to produce the orientation of contemporary investigations The "modern" trend focuses upon the *processes* of perceiving and judging; the "early" studies concentrated upon the *accuracy* of perception or judgment. The early work grew out of a combination of interests: validation of test procedures by independent judges, assessing traits of personality, concern for what constituted a "good" judge of personality

Earlier investigations focused upon the characteristics of the judge, the characteristics of the person to be judged, the procedures used in judging, and the criteria used for assessing accuracy.

Judges. In a typical study, the judges might be "varied" in several respects: age, sex, intelligence, personality characteristics, psychological

training, occupation, relationship to and likeness to subject, degree of acquaintance with subject, etc.

Persons judged Subjects whose personality characteristics (as measured by tests or assessed by experts) were to be judged were presented in verbal vignettes, in films, in person, via test scores, through voice, handwriting, expressive movement, etc They varied in age, sex, intelligence, personality, etc In some studies, the subjects were also the judges — all members of a group judging each other and being in turn judged, as in a fraternity, a therapeutic group, or a crew. Indeed, in Wolff's studies (1933, 1935, 1943) and in Huntley's (1940), the judge had the task of making a judgment about himself as subject without being aware that the disguised pictures and samples of handwriting were his own

Procedures The procedures used for judging subjects have also been various. The basic requirement was that the "real" status of the subject (as tested or expertly judged) be compared with the judges' estimate. Prediction, rating, ranking, free description, checklists, matching procedure are all represented in the literature as means of obtaining estimates from judges.

Criteria By the criterion is meant the datum or value against which the judge's rating is to be compared The subject's own behavior (in a prediction procedure), his psychometric score, his ranking, his self-rating, his responses to a questionnaire have all been used. The consensus of expert judges or a diagnostic council, the diagnosis of a psychiatrist or clinician — these too have been used. That the problem of choosing a criterion is the most critical one in assessing this area of research will be evident when considering as an example the case in which a diagnostic criterion given by a psychoanalyst is matched with the kind of judgment that would be made by a layman serving as an observer in the experiment.

First, several general *judgmental effects* are to be noted. The best known of these is the *halo effect,* a term coined by Thorndike (1920) and observed as early as 1907 by Wells. Wells found that judges tended to rate subjects on several traits in terms of a general impression of goodness or badness (the "halo") and that this introduced a spuriously high correlation into their ratings. With great ingenuity, later investigators (interested more in rating methods than judgmental phenomena) have worked out procedures for minimizing the effect of halo. Yet the effect itself has become interesting in its own right (e g., Rugg, 1921; Symonds, 1925, 1931), reflecting as it does a tendency on the part of the subject to "package" the myriad impressions he receives from another person Halo effect is found to be most marked when the traits to be judged are unclear in behavioral expression, when they are not frequently used by the judge, when they have moral implications Halo seems to increase with increased acquaintance (Symonds 1925, 1931)

A somewhat related tendency toward packaging information is described by Newcomb (1931) and called by Guilford (1936) the *logical error.* On the basis of personal experience judges have conceptions as to what traits go with what other traits If you will, this is the judge's conception of the "causal texture" of an individual Thus, if one rates a person high in aggressiveness, one will be more disposed to rate him high rather than low in energy This "error," of course, has become the subject of much direct research by psychologists interested in formation of impressions (e g, Asch, 1946)

A third judgmental tendency, the *leniency effect,* is perhaps more culturally variable It consists, of course, in the tendency to rate others (and also oneself) high in favorable traits and low in unfavorable traits. It goes without saying that such a judgmental tendency markedly affects trait attribution studies such as the investigation of projection by Sears (1936) The tendency toward leniency might well reduce the likelihood that one will project undesirable characteristics in oneself on others. Viewed as a judgmental phenomenon, leniency poses interesting problems Recently, Lemann and Solomon (1952) have pointed out that it may be necessary to conceive of two forms of rating scales characterizing judgment of other people The "alpha scale" is one that extends from good to bad, an example being the continuum from *generous* to *stingy*. On such scales, there is a tendency for rating distributions to be skewed toward the "good" end — the leniency effect In "beta scales," extending from bad through good to bad, leniency leads to a piling up of ratings in the middle. Such a scale comprises the continuum from *shy* through a good middle point to *bold* The results of Lemann and Solomon (1952) indicate a need for caution in choosing the kind of scale one employs in rating studies, and in grouping scale items for purposes of analysis.

What one makes of the leniency effect depends, of course, upon the nature of one's interest in judgmental phenomena. In classic terms, it is little more than a special instance of central tendency of judgment, with ratings regressing on an idealized middle point: i e,

lacking full information, one operates on the assumption that people are moderately good. From a cross-cultural viewpoint, however, it is striking to note that in a study of personality rating by Chinese students (Trow and Pu, 1927), the leniency effect is markedly reduced. Perhaps the degree to which the effect operates is a function of the culture's "null hypothesis" about human nature.

Consider now the various *determinants of "accuracy"* in judging another's personality. At the outset, knowledge of the purpose of the procedure increases accuracy (e g., Paterson, 1923), as does the interest of the judge in the rating procedure (e.g, Conrad, 1933). The more a trait being judged is behaviorally visible, the easier the judgment (e g, Estes, 1937), and insofar as the trait to be judged is important in the interpersonal relation of judge and judged it will be more easily judged (e g., Chowdhry and Newcomb, 1952). Bender and Hastorf (1950) found that subjects could predict better their friends' responses to social *situation* items such as those in the ascendance-submission test (Allport's), than responses on items regarding social *feelings*.

Degree of *similarity* between judge and judged tends to increase accuracy of judgment, whether similarity is in terms of sex, age, background, complexity, personality characteristics (cf. G. W. Allport, 1937). Kinder (1925) has found, however, that similarity also has the effect of making judgments more favorable In a more recent study by Notcutt and Silva (1951) in which husbands and wives predicted each others' self-ratings, it was found that accuracy of predictions exceeded chance and that successes were greater on those items in which husband and wife were most similar in their self-ratings.

The *relationship between judge and judged* has been shown to affect ratings differentially and consequently has a bearing upon accuracy. Webb (1915) observed that lecturers' judgments of students were biased by knowledge of their academic ability. Kelley (1948) found that by giving his judges different role expectations (leader, follower, or unspecified) they would concern themselves with different aspects of the stimulus person. Degree of acquaintance, especially if accompanied by intensification of affection, makes for more favorable ratings (e.g., Knight, 1923; Shen, 1925; Ferguson, 1949). The feelings held by the judge for the judged affect, among other things, the extent to which the judge regards the other person as similar to himself; Fiedler, Blaisdell, and Warrington (1952) found that subjects assume greater similarity between themselves and their positive (sociometric) choices, than between themselves and their negative choices. Difference in age (Newman, 1946), rank, or status differential (Williams and Leavitt, 1947; Powell, 1948; Sisson, 1948, Fiske, 1949) all influence ratings. By and large, length of acquaintance aids accuracy. The effect of the type of relationship upon accuracy, however, depends upon the type of judgments required (e.g, Williams and Leavitt, 1947). Thus, fellow officer candidates were better predictors of combat performance than were training officers.

How the interaction between judge and judged affects the manner in which one person judges another may be illustrated by a fictitious example. Consider the following situation. An enlisted man in the Army is a mechanic in a motor pool. In the course of his work, he comes into contact with two different men. One is a fellow enlisted mechanic, the other is the officer who will eventually lead the group in combat. The officer will form an impression in terms of the man's reliability, initiative, and courage, the fellow mechanic may form his impression in terms of whether the other man is a "nice guy," a good mechanic, and cheerful. Each is observing and making inferences based upon those aspects of behavior of the mechanic that might affect their interaction with him It is also apparent that if one is, for example, a very experienced officer and the other a very experienced motor pool mechanic, each will be adept in picking out relevant and reliable cues for use in making his own kind of judgment. Thus, at least two things occur by virtue of the character of the interaction between individuals. In the first place, there is a tendency for one to notice different things, i e, to notice those things about another that affect the fate of an interaction. In the second place, when an individual is *habitually* involved in certain forms of interaction, he becomes increasingly skilled (and possibly more accurate) in the use of relevant cues for making judgments. It is our feeling that more research is needed in this area, that only a beginning has been made in studying the manner in which the nature of an interaction affects judgment.

Confidence in one's judgment has an equivocal relationship to accuracy; some writers find a positive relationship (e.g., Odbert, 1934), some a negative one (e.g., Steinmetz, 1947), and some none (e.g., Polansky, 1941).

The *formation of a first impression* of a person prior to rating may have the effect of rigidifying and impairing later judgments, according to Dailey (1951). But there is unfortunately

little work on the sequential steps involved in coming to an accurate judgment on the basis of increased information or increased experience with the task

"Openness" of a subject was found to be a critical factor affecting accuracy (Estes, 1937) and one might indeed investigate what are the characteristics of "open" and "concealed" expressive types — a subject alluded to in the previous section on judgment of emotion.

There is much speculation but little data on the difference between *analytic* and *global* attitudes in judgments of personality. In general, it has been found that judgments made with a "global" or "intuitive" attitude are more accurate than analytic judgments (e g., Cantril, 1932; Estes, 1937). Perhaps related to this finding is the further report by Estes that artists tend to be better judges than psychologists, if one assumes that the former operate more "globally" or "intuitively" than the latter.

Is there a relationship between *self-insight* and accuracy in judging others? The question, more out of procedural than substantive considerations, is a highly complex one. Several types of investigation bear upon it.

The first set of studies comprises those in which "insight" is equated operationally to agreement between the ratings one gives oneself on certain traits and the ratings accorded one by others If one agrees with others about oneself, "insight" is said to be present. More often than not, the others against whom one's self-rating is pitted are peers — fraternity brothers, classmates, dormitory neighbors. Weak though the procedure may be, it has yielded suggestive results

Sears (1936) had fraternity brothers rate themselves and each other on four traits. Lack of insight on undesirable traits was found to be correlated with bias in rating others on these traits, the deviation from consensual accuracy being in the same direction for self-rating and the rating of others. Lemann and Solomon (1952), using much the same design, were unable to replicate the result on college women. Frenkel-Brunswik (1942), using three psychologists as subjects and the Murray need list as her rating variables, also found no simple relation between "insight" (again defined consensually) and accuracy in judging others. Taft (1950) similarly found slight but unreliable positive correlations between self-rating ability and ability to rate others.

Two additional investigations, both based on the consensual method, suggest the presence of a relationship between the two kinds of abilities. Rokeach (1945) found that girls who could rate their own degree of beauty in agreement with others' judgments of it were the better judges of others' beauty in the sense of agreeing with group standards Green (1948) obtained a correlation of 74 between accuracy in estimating one's own leadership (as established by pooled judgments by others) and ability to judge leadership in others.

The next set of studies investigates the *personality characteristics* associated with the ability to judge others accurately or to judge oneself accurately, consensual agreement again providing the criterion of ability Logically, if those able to judge their own traits as others do are found to differ from those able to judge others in agreement with fellow judges, then one might conclude that the two abilities stem from different sources. Adams (1927) asked eight teams of ten girls each to rate themselves and each other on 63 traits and found that the good judge of self and the good judge of others differed in terms of their personality traits (as defined by consensus of others). In general, the good or "agreeing" self-rater tended to be happier, more intelligent, less gloomy, less irritable, more sympathetic, generous, and courageous than the good or "agreeing" judge of others. The good judge of self has outstanding social interest and adaptability. Vernon (1933) used self-inventories as criteria in addition to pooled ratings by others, and found results that agree with Adams. Taft (1950) essentially confirmed these findings but he adds that while the good judge of self has the desirable characteristics listed above, he is also (according to independent ratings by psychologists) less stable.

Several investigators have attempted to use independent measures of insight — either inferential or clinical in nature — against which to compare degree of accuracy in rating others One of the earliest of these was a study by Vernon (1933). Between insight independently defined and consensual accuracy of self-rating he found a correlation of .39 A correlation was not found between independently defined insight and ability to rate others in agreement with other judges. Weingarten (1949) found that insightful judges (insight determined clinically by analysis of autobiographies) projected their tensions onto others less than did non-insightful judges. Finally, Dymond (1948 and 1949) reports that the ability to "empathize" (richness of characters in TAT stories) tends to be related to the person's insight as measured by whether he shows in a clinical interview any understanding of his own relations to others as these are revealed by his own TAT protocol.

One might find better correlations between

self-accuracy and accuracy in judging others by employing a "deeper" definition of insight. Yet the few available studies on the subject have produced somewhat dubious findings, largely because they have fallen short of proper design. Thus, Estes (1937) finds no difference between psychoanalyzed judges and those not analyzed. But are the judges otherwise comparable? Murray (1938) concludes on the basis of his observations that analyzed judges are better. A definitive study remains to be done.

Considering in perspective the studies using consensus for the definition of insight and those using independent criteria, it is difficult to say whether one should expect comparability. Those who agree with peers about what they are like may represent one form of insightfulness. It may be the kind of insightfulness not related very highly with the ability to see others as most people find them. It is conceivable that certain more covert forms of insight (where the individual's estimate of himself is out of kilter with the opinions of his peers but in agreement with the opinions of his therapist) may be related to consensual accuracy in other ways. One thing that is clear is that consensual insight as used, say, by Lemann and Solomon (1952) is not of the same breed of concept as insight used by Murray (1938). Each is psychologically interesting, but their relation is not clear.

The evidence on the relationship between *intelligence* and accuracy in judging others is somewhat ambiguous. If anything, it points to a slight positive relationship. Positive correlations were found by Allport and Allport (1921), Adams (1927), Sweet (1929), Vernon (1933), the OSS group (1948), Dymond (1949), and Taft (1950). The last author distinguished usefully between analytic and nonanalytic (empathic) judgment. The positive correlations he found were with *analytic* judgments. Other workers failed to obtain positive results; among them, Bender (1935), Kelly, Miles, and Terman (1936), Walton (1936, using children as subjects), Estes (1937), Travers (1941 and 1943), and Taft (1950) (nonanalytic judgments). While the range of intelligence spanned in most of the studies was relatively small, it seems as if very low intelligence compromises the accuracy of judgments, while high intelligence is no guarantee of good performance.

Experience has generally been assumed to be a correlate of ability to judge others accurately. Little systematic testing is available to prove or disprove the point. Bender (1935) and Taft (1950) both indicate that their results confirm the view, but neither states with much explicitness what is involved in experience. Taft does state, however, that experience in the cultural milieu of the people to be judged is what appears to be critical, suggesting that a knowledge of cultural pressures increases the predictive power of a judge.

The role of *complexity* is also ambiguous. G. W. Allport (1937) has remarked that it is doubtful whether subjects can judge correctly those more complex than they are. If age in adulthood be taken as a measure of complexity, few age differences are reported. Estes (1937) found age unrelated to the judging ability of his adult subjects. Walton's finding (1936) suggests an increase in empathic ability with age. But age in adulthood is a variable comprising more than complexity. If the findings on similarity between judge and judged be brought to bear here, one might predict (in the light of other studies reported) that people of *like* complexity would judge each other more accurately than people of different degrees of complexity. There is reason to suppose that the complex scholar-statesman, for example, may misunderstand the peasant in characteristic ways much as the peasant may misunderstand him in other ways.

Detachment has often been mentioned in the literature as associated with the ability to judge others accurately. Thus, studies previously cited (e.g., Adams, 1927, Vernon, 1933, Taft, 1950) found good judges to be less social and extroverted. Estes (1937) reports that among his judges, those who became emotional in the process of making judgments did least well. Taft (1950) lists the adjectives that, in the opinion of a psychological assessment staff, were found to characterize the good judge more often than the poor judge: alert, calm, capable, *cautious, clear-thinking,* efficient, honest, intelligent, *logical,* organized, persevering, planful, practical, quiet, *realistic,* reliable, *reserved, serious, sincere,* and *thorough.* (The adjectives italicized were significant at the .001 level of confidence in distinguishing good and poor judges.) The good judge seems, indeed, to have abundant capacity for cool-headed evaluation of others.

G. W. Allport (1937) is of the opinion that one of the more important single qualities of the good judge is his *aesthetic sensitiveness* and ability. Supporting evidence for this view is provided by the studies of Allport and Allport (1921); F. H. Allport (1924); Vernon (1933); Bender (1935); Walton (1936); Estes (1937); and Taft (1950). Taft found that the positive correlation between judgment and aesthetic sensibility did not hold when sophisticated artistic interests were involved, but he obtained

results analogous to those quoted above when the element involved was of the nature of simple aesthetic sensitiveness.

The relationship between *social adjustment* or social adroitness and ability to judge others is a complex one. Adams (1927) found that the good judge is not only an introverted, unsociable person with low social values, but that he is also egotistic and cold-blooded in his utilization of others for his own purposes. Allport and Vernon (1933) also find that good judges tend toward introversion The characteristics of the good judge given by Taft *(vide supra)* seem to agree more with Allport's and Vernon's views than they do with the more extreme ones of Adams. The middle ground is occupied by the findings of Hanks (1936) and the OSS group (1948), who found no relationship to speak of between social adjustment and ability to judge others In this connection, there is an interesting statement in the *Assessment of Men* (1948, p. 298). The judgment-of-others test was first included in the OSS battery "because it was thought that the ability to size up other people is probably correlated positively with the ability to maintain smooth interpersonal relations. Experience proved that this was true, but to a much slighter extent than we had expected In a great many instances there was a wide gap between knowing and doing in the realm of social relations." The test was eventually dropped.

At the other extreme, however, are studies that maintain that high skill in judging is related to social adroitness. Most of these studies, however, involve nonanalytic, empathic judgments and therefore do not constitute necessarily contradictory evidence. Travers (1943) found the ability to judge to be correlated positively with scores on the Bell Social Adjustment Inventory. Cottrell and Dymond (1949) found that their most empathic judges were expressive, outgoing, optimistic, and warm.

There are also studies indicating that sociometric popularity (taken here as an indication of social adjustment and leadership) is correlated with ability to predict the opinions of a group on group-relevant issues, e.g, Wood (1948), Chowdhry and Newcomb (1952), and Gage (1952). However, several studies that have not replicated these findings can also be listed (Personnel Research Board at Ohio State Univ., 1949; Hites, 1948; Sprunger, 1949; Hites and Campbell, 1950). It is difficult to say what kind of ability is involved in prediction of group opinion. The positive results may be due in part to greater conversational interaction with other group members by the sociometric "stars" who might be in a better position as informal polltakers. On the other hand, leaders may attain their status because of their superior capacity to judge group opinion. In the light of the many findings, a third explanation must be considered. that a leader exerts a strong influence upon the opinions of the group (Hemphill, 1949, Gibb, 1950, Stogdill, 1950, Talland, 1953) If, as may be expected (cf, e g, Bender and Hastorf, 1953), projection plays an important role in the judgments of others' opinions, it should result in the leader's judgments coming closer to the group opinion than judgments by others.

Bender and Hastorf (1950, 1953) indicate that what may appear like accuracy ("social sensitivity") in being able to estimate others' attitudes and feelings may be a function either of a combination of projection by the judge abetted by similarity between judge and judged and/or of something approaching empathy They distinguish "raw empathy" scores from "refined" scores — the former being a straightforward accuracy score, the latter being raw accuracy corrected for the contribution of the judge's projection of his own attitudes In general, their conclusion is that some subjects tend to be consistently empathizers and others consistently projectors, and that studies of judgment of others must take into account the projection factor in drawing conclusions about accuracy Their findings, indicating that judge-subject similarity is uncorrelated with "refined empathy," while similarity and "raw empathy" scores are highly correlated, support this caution The work of the above writers adds, by the way, to the studies of the "empathic response" by Dymond (1948, 1949) and Cottrell and Dymond (1949), where consideration of these two factors was not given systematic attention

The preceding discussion assumes that "accuracy" in social perception is a generalized ability. An evaluation of this assumption would carry us far into the problems of statistical analysis. There is evidence for both specificity and generality of accuracy. Vernon (1933) takes a somewhat middle position on the subject, doubting whether there is such a thing as completely general "intuitive" ability The early work of Wells (1907) and Hollingworth (1911) found no general ability. Estes' judges showed quite consistent general ability (1937). Cartwright and French (1939) indicate that judges may be good in certain areas of prediction, not so good in others We are inclined to agree with G W. Allport's claim (1937, p. 512) that it would

be more erroneous to "consider the ability entirely specific than to consider it entirely general."

Studies on the "accuracy" of judging others have not progressed to a point at which firm substantive conclusions can be brought to bear upon a theory of judgment. The criteria employed have been too often of a consensual kind· accuracy is mostly defined as agreement with others regarding a person's characteristics. Given systematic biases in judgment — the halo effect, the leniency effect, the logical error, etc. — these studies may be seriously confounded. Accuracy may mean simply that a particular judge shares the most common bias found among his fellow judges. Taken from the point of a theory of judgment, relatively few firm conclusions can be drawn. Tentatively, the most reasonable seem to be these:

(a) Accuracy is aided by similarity between judge and judged. To some extent this may be a function of "resonance" between judge and judged, to some extent it may be a function of better acquaintance with people like oneself, with more intervening opportunities for observing their behavior. To some extent it could be projection, which happens to be accurate when the other person is like oneself

(b) Accuracy depends upon having cues to work on. Traits with little behavioral manifestation are poorly judged. Individuals whose expressiveness is damped are harder to judge.

(c) Certain systematic errors in judgment — halo effect, logical error, and the like — account for much of the error involved in judgment. Other sources of error are more dynamically explicable, notably in terms of the tendency to project.

(d) There are systematic relationships between various personality variables and judging ability. Detachment helps Social adjustment and intelligence can, under certain conditions, improve judgment.

(e) A global or intuitive approach seems to improve judgment. It may well be that the correlation between judging ability and aesthetic orientation can be accounted for — at least in part — in these terms. Over and beyond this, the aesthetic orientation may be associated with a form of empathic capacity. It may turn out to be the case, finally, that empathic ability (as yet poorly understood) may be the critical capacity in this difficult form of cognitive enterprise.

STUDIES OF IMPRESSION FORMATION

If, during the period of the '20's and '30's, the main emphasis was upon *accuracy* in judging "personality," the trend today is upon the *perception* of others. The formation of impressions has become the central concern. What in the previous period were "errors" of judging are now the very phenomena under study.

When such early studies as those of Zillig (1928) were published — showing the effect of attitude on the perception of another's performance — they were generally interpreted as studies in "suggestion." With the gradual absorption of field theory, the Gestalt viewpoint, and the psychoanalytic conceptions of the psychopathology of everyday life, the orientation of research began to change. Bartlett (1932) showed, for example, that photographs of Army and Navy officers were more often perceived by young men subject to military duty than by others as embodying command and threat. At about this time Murray (1933) published his study on the perception of maliciousness of faces by young girls after they had been playing a game of "Murder" Lewin (Lewin, Lippitt, and White, 1939) and his students were, by the late 1930's, becoming increasingly concerned with the perceived power of group leaders and the beginnings were being made in formulating a concept of "social perception."

Another source of influence was, of course, the widespread use of the TAT in clinical practice. If inferences might be made about the personality of the subject on the basis of how he interprets people in a TAT card, then the process of social perception or apperception might itself be worthy of study. The investigation of motivational factors in perception gave further impetus to the trend, particularly the studies of Murphy (e g., Levine, Chein and Murphy, 1942; Proshansky and Murphy, 1942), Bruner and Postman (e.g., 1949), and others (e g., Sanford, 1936, 1937; McClelland and Atkinson, 1948, 1949, Atkinson and McClelland, 1948, McClelland, Clark, Roby, and Atkinson, 1949).

It would be incorrect to give the impression, however, that prior to the trends noted above there had been little concern with "social perception," as it has come to be called. Indeed, there had been much speculation and observation of the nature of "understanding" others — much of it stimulated by philosophical-psychological controversy in Germany. Theories of intuition, empathy, and inference were important stimuli to thinking about the process of forming impressions. G. W. Allport has summarized these early beginnings masterfully in his *Personality* (Chapter XIX) and the reader is referred to this source for further information. We shall confine ourselves to more recent investigations in the discussion that follows.

A discussion of forming impressions of another personality conveniently begins with a consideration of the work of Asch (1946, 1952), following up earlier studies and observations by Wertheimer and Arnheim (Arnheim, 1928, 1949) and Kohler (1929). Asch operates within the Gestalt tradition. He begins with the assumption that certain kinds of personal properties can be directly perceived, noting the experiment of Heider and Simmel (1944) in which schematic objects moving in appropriate ways in a motion picture are seen as performing human acts and having human characteristics. Directly apprehended human characteristics are part processes of a configuration of the perceived personality which has Gestalt characteristics in the manner of any other organized perceptual or cognitive field.

To demonstrate the organized nature of impressions of personality and the determination of part processes by the total configuration, Asch (1946) gave groups of students two lists of discrete qualities said to belong to a person, the first list being *intelligent — skillful — industrious — WARM — determined — practical — cautious,* and the second list being identical with the above one in all respects except that the word WARM was replaced by the word COLD. The subjects were instructed to write sketches and then to select from a checklist of pairs of opposite traits the terms that best fitted the impression they had formed. The "warm" and "cold" groups differed markedly in their impressions. Asch concluded that a change in one quality produced a basic change in the entire impression. the "warm" group perceived the imaginary stimulus person as wise, humorous, popular, and imaginative, while the "cold" group formed an impression of a strikingly different order. Importantly, however, the warm person was not viewed more favorably in *all* respects, so that Asch concluded that the differentiating quality does not affect all qualities indiscriminately (halo effect).

Mensh and Wishner (1947) carried out the "warm-cold" experiment with different groups, obtaining essentially the same results. Kelley (1950), realizing the limitations of using fictitious stimulus persons (cf. Luchins, 1948), employed the warm-cold procedure in an experiment where students were to rate a real instructor whom they met after they were briefly informed as to what type of person he was. Half the subjects were told among other things that the instructor was warm, and the other half that he was cold. Kelley found substantially the same effect reported by Asch.

In another experiment (1952) Asch, having replaced *warm* and *cold* with the words *polite* and *blunt,* found that the differences in the resulting impressions of a fictitious person were much less marked, concluding that not all traits are equally central. By embedding the quality "warm" differently among different traits, Asch further showed that the content and function of a personal quality is a dependent part of its surrounding qualities "Processes of organization and grouping occur among the properties noted, in the course of which each finds its specific content and functional value. It is on this basis that a given characteristic becomes central or peripheral" (1952, p 211). Again, Asch indicates that the order in which the same list of traits is presented to the judge produces different impressions The traits given first, he concludes, set up a direction that exerts a continuous effect on the later traits. The initial impression acquires a certain stability. This was also shown by Dailey (1951) in more complicated judging situations where judges first came to a personality formulation on the basis of a portion of the total information available, and then reconsidered each case in the light of the entire material. First impressions made later material less effective.

Another experiment on the configurational nature of impressions and their relative cohesiveness was performed by Asch (1952). He asked subjects to form impressions from two trait lists: "intelligent-industrious-impulsive" and "critical-stubborn-envious" After they had formed impressions of two separate persons, he requested that they regard *all* the traits as characterizing a single individual. These subjects experienced considerable difficulty in doing so, unlike subjects who, *from the beginning,* had been told that all the terms referred to the same individual. Kastenbaum (1951) has reported closely related findings. She made three similar recordings of telephone conversations in such a way that warmth, neutrality, and coldness were characteristic of each conversation in turn. When single conversations were presented to the subjects as stemming from different people they formed impressions consistent with the warm, cold, or neutral quality of the stimulus. When told later that the three conversations were with the same person, they had difficulty forming a unified impression. Those subjects who heard all three forms of stimuli, but as stemming from the *same* person, had less difficulty by virtue of assimilating or omitting contradictions from the main personality theme.

Haire and Grunes (1950) obtained analogous results when they presented their student subjects with two descriptions of a factory worker.

One description contained the item "intelligent," the other, identical in all other respects, did not They found that the inclusion of "intelligent" was a disturbing factor in the formation of impressions by subjects with antilabor attitudes, apparently because they did not consider this quality as appropriate to a factory worker. The judges coped with the situation in a number of ways some denied the existence of the item, some distorted it and encapsulated it so as to render it unimportant, some pointed out the incongruity, and finally others integrated the item by altering their stereotype of a factory worker.

There are several studies that cast some light on the thorny problem of the relationship between value orientation and the impression one gets of others. Thus Fensterheim and Tresselt (1953) asked subjects to attribute traits (reflecting the six Spranger value areas of the Allport-Vernon test) to a series of photographs, and to rate the photographs in terms of preference. They found that "the closer the value system projected into the stimuli [pictures] resembled the value system of a subject, the greater was the liking" (p. 97). Stagner (1948) has found an analogous effect. Students were first separated into a prolabor and an antilabor group. They then checked, in a list of traits, those characterizing factory workers and those characterizing executives Subjects then marked the traits characterizing themselves, and finally indicated the pleasantness or unpleasantness of the traits in the list. Prolabor students ascribed to themselves more of the same traits that they ascribed to workers and saw these traits as pleasant Stagner urges a recognition of perceptual factors in aggravating industrial conflict.

Finally, there is a series of studies on the perception and recognition of ethnic group membership by Allport and Kramer (1946), Carter (1948), and Lindzey and Rogolsky (1950) that requires brief comment here. These studies, taken as a group, indicate increased sensitivity to ethnic characteristics as a function of increased prejudice — a heightened or vigilant awareness of cues to ethnic origin. The question they raise, particularly the last of the studies cited, is whether people are not differentially sensitive to those personality characteristics in others that matter most in their own interpersonal adjustment. Certainly the studies of social perception in groups would tend to underline this source of selectivity in the perception of others.

High-low authoritarianism as measured by the California F-scale (Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950) has also been found to be a determinant in the perception of others E. E. Jones (1953) in a well-controlled study, presented naval recruits scoring high and low in authoritarianism with a recording of an interview with a man who might become their squad leader. This stimulus person was varied systematically, for matched groups, along dimensions of power and leadership attitudes. As shown in their ratings, the low authoritarians are generally more sensitive than the high authoritarians to variations in the psychological characteristics of the stimulus person, and more inclined to pass critical judgment on the leadership figure. Whereas Thibaut and Riecken (1953) report the heightened sensitivity of the high authoritarian to variation in the military rank (or *institutionally derived* power) of the stimulus persons, Jones finds that high authoritarians are relatively insensitive when presented with variations in *personal* power (forcefulness) as compared with the low authoritarians. A more general finding on the social perception of the ethnically prejudiced is provided by a study of Scodel and Mussen (1953). They found that people with high ethnic prejudice are less able to judge other people's social attitudes and traits correctly than are people with low ethnic prejudice

Studies of impression formation are now appearing with considerable frequency in the journal literature of psychology. The trend appears to be in the direction of investigating what kinds of organized impressions are formed under varying conditions of cue, role, set, and prior information. There appears to be a de-emphasis of interest in the nature of judgmental accuracy, and a renewed emphasis in the judging process, whether it produces correct or erroneous impressions To a considerable degree, the systematic phenomenological emphasis suggested by MacLeod in his programmatic paper of 1947, by Krech and Crutchfield in their textbook (1948), and by Lewin (1947) in his two papers on "frontiers in human relations" has found its way into the design of experiments in this area. Unquestionably, a deeper historical root can be found in the writings of the Gestalt psychologists and analytically oriented dynamic psychologists who have influenced the authors noted above.

It seems to us that there are at least two rather obvious gaps present in the impression-formation literature The first concerns the manner in which naive subjects conceptualize and categorize other people. As we have said before and risk repeating now, there are no systematic studies devoted to an analysis of the categories used by ordinary people in everyday

life for describing other people. What features of others are most likely to be noticed by people of various backgrounds in various kinds of situations?

Moreover, what kinds of naive, implicit "theories" of personality do people work with when they form an impression of others? We know from the Asch studies that such terms as "warm" and "cold," when introduced into a description of personality, alter the apparent quality of certain other traits. In "everyday personality theory," we would ask, what kinds of inferences is a person led to by knowledge that another person is "warm"? A study of inferential relations between attributes of personality is necessary if we are to understand common-sense personality theory and the way in which certain forms of knowledge about another person come to influence drastically the total impression formed.

The second consideration has to do with the special status of human beings as objects of knowledge. It is commonplace to say that a person being perceived is different from an inanimate object Nonetheless, there is one feature of this difference that has been persistently overlooked in the design of research. Many of the cues used in judging another person are cues that we as perceivers are instrumental in producing Since, in this special case, the object of our perception is reactive to us, we evoke cues from him by probing or, indeed, simply by being in his presence. Little research effort has gone into the investigation of how this feature of the interpersonal perceptual situation affects impression formation. Do certain types of individuals have certain systematic effects on the behavior of certain other types of individuals that leads them to see these other people in certain characteristic ways? Do dominant individuals, for example, have the effect of evoking noticeably submissive behavior in their less dominant peers, with the result that other people are seen as more passive (cf. Ichheiser, 1949)? Another feature of this same phenomenon is the existence of certain forms of probing behavior — often of a sort not even reportable by the perceiver. Certain people are said to be "clever" in judging others Is this by virtue of the fact that they have good probing techniques for evoking relevant cues in others?

A further consequence of having another human being as an object of perception is the primitive fact that human beings share certain internal states Given another human as an object, we know in general terms what kinds of internal states may be inferred on the basis of any observed external behavior One has as a reference one's own internal states in making judgments about the internal states of others Interpersonal perception has the unique feature of maximizing the similarity of perceiver and perceived If we consider that within the sphere of interpersonal perception, maximizing similarity between perceiver and perceived increases accuracy and subtlety, then we may appreciate how great the difference may be when one is perceiving a human and a nonhuman object. While the point is obvious and perhaps, in principle, without consequence for research, it is one which must be taken into account when formulating a theory of social perception.

The two problems mentioned — the typologies used in forming impressions and the cue-evoking power of the perceiver — are, of course, relevant not only in impression formation but also in the judgment of emotion and in making accurate appraisals of other personalities. The attention we have given to these problems in this concluding section is admittedly in the interest of urging that more work be directed toward what seems to us a weak link in the chain of research that is gradually being constructed in the study of how others are perceived and judged.

Conclusions

Three areas of inquiry have been passed in review: (a) the judgment of emotions from facial and other forms of expression, (b) the judgment of personality characteristics from various external signs, and (c) the formation of impressions of other personalities. A prudent conclusion would be that work in all of these areas is still very much in its infancy, and that growth in each is to some extent hampered by serious problems of experimental method and design.

There is as yet little agreement on what kinds of response categories should be used by those whose judgments or perceptions are being studied. We have suggested that systematic research be directed toward understanding the nature of preferred descriptive responses used by subjects in different interpersonal situations.

It is also fair to say that few conventions have as yet been worked out concerning the manner of presenting expressive material to be judged. In a rather willy-nilly manner, for example, a vast literature arose based on judgments of emotion from still pictures and drawings of human

faces — when indeed we know that it is rarely that one makes a judgment based upon a frozen millisecond of exposure to a face expressing emotion, with all other forms of information lacking. Again, we feel that more research is required about the kinds of information or cues actually used by people in judging emotions and traits or in forming impressions To what degree are situational factors important in narrowing the range of possible alternative ways in which a person will be judged? To what extent is the role relation between perceiver and perceived a constraining factor? How much does the perceiver's probing behavior or expressive style limit the kinds of cues that will be emitted by another individual?

There is still some distance to go in carrying out adequate analyses of the stimulus properties of people whose traits or emotions are being judged The work of Woodworth (1938), Schlosberg (1952), and Brunswik (1947) points to possible directions of inquiry It is the exception to find that specific emotions are characterized by invariant patterns of expression common to large masses of people. There is, however, evidence to indicate that individuals appear to be relatively self-consistent in their own expressive styles from one mode of expression to another (e.g, Allport and Vernon, 1933). Most categories we use for describing the states of others permit the utilization of a multitude of different cues happiness is inferred from smiling, jumping up and down, clapping the hands, etc. How are these varying cues learned and how is this learning affected by the culture in which one lives? It seems unlikely that conventional stimulus analysis of expression carried out with calipers will yield much of value in understanding the stimulus properties of faces in a state of emotion or of overt behavior indicative of certain traits Rather, the likelihood is that careful studies of the perceiver will be necessary to determine what wide ranges of stimulation provide equivalent cues for judgment. Once such ranges have been delimited, it may then be possible to deduce certain common cues.

The development of research in the three areas covered has been somewhat hindered by an excess of empirical enthusiasm and perhaps a deficit of theoretical surmise. Extension of various forms of psychological theory into the area of interpersonal judgment may have the effect of introducing order where little now exists. Thus, the introduction of Gestalt theory into the study of impression formation has had such an effect. Extension of learning theories to the phenomena of learning how to judge or discriminate others might have a similar effect There are inherent in psychoanalytic theory various suggestive hunches about judgment of others as a function of "object relations" that might also yield interesting hypotheses for testing Again, the relevance of theories of cognition — concerned with concept formation, the formation of inferences, generalization, and the like — may be fruitfully extended to cover the very important special case of how we come to know about others.

One point upon which most social psychologists would agree provides a proper final conclusion. The first step in reacting to another is forming an impression of him. Later reactions depend on this first step. If there is to be a science of interpersonal behavior, it will rest upon a cornerstone of social perception. If for this reason only, far more effort must be expended on the task of discovering how people come to perceive other people as they do.

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CHAPTER 18

Socialization

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Socialization refers to a problem which is old and pervasive in human life — the problem of how to rear children so that they will become adequate adult members of the society to which they belong The great concern of parents in our society about whether they are raising their children properly appears to exceed normal proportions — both because of general social conditions which make for insecurity in the parental role, and because of the wide diffusion of anxiety-arousing advice to parents. Yet the awareness of child rearing as a problem, if exaggerated among us, is by no means unique. Classical accounts of how the Spartans reared their boys, to ensure their being fearless warriors, illustrate the antiquity of practical concern with this problem in Western civilization. The ease with which anthropologists can elicit from their informants statements in explanation of child-rearing practices illustrates the general pervasiveness of this concern among our primitive contemporaries.

Despite this long history of practical interest in socialization, the use of a fairly uniform label for socialization in scientific discussion is new, and there is not even yet complete agreement on terminology "Socialization" is used here as a broad term for the whole process by which an individual, born with behavioral potentialities of enormously wide range, is led to develop actual behavior which is confined within a much narrower range — the range of what is customary and acceptable for him according to the standards of his group The word calls attention to a broad set of events, not very sharply defined. Looking at these events and seeking to understand them, the scientist will develop notions of variables to be studied, and these variables will eventually need more precise definition. As knowledge about socialization develops, we should have an ever clearer analysis and description of variables in this process, of the effect of these variables upon other events, and of their dependence upon still other events.

SOURCES OF IDEAS AND EVIDENCE

Socialization is a field of study in which the contributions of several distinct disciplines may be brought to bear on a single group of problems, and in which major progress has been made precisely where such interdisciplinary work has been done. Separate influences on thought about socialization have arisen within these several disciplines, and these influences will be briefly reviewed.

The most important influence of all must surely be assigned to social anthropology The whole great body of ethnographic findings which has resulted from the field work of anthropologists constitutes, in a sense, a demonstration of the crucial importance of socialization as an influence on human behavior. The demonstration arises from the finding that human behavior varies from one society to another to an extent and in ways which are beyond the surmise of anyone who knows only his own society, and that these variations survive for the most part through their transmission by social learning from one generation to the next.

From this general finding there have proceeded within anthropology two movements which are of special importance for the study of socialization. First, awareness of the role of socialization as the mechanism of culture transmission and survival has led to study of socialization as itself an important part of the culture of any group which is studied. Sometimes this study is directed at analyzing the uniformities of socialization, as in Whiting's publication on the Kwoma (1941). Sometimes it is directed rather at exhibiting specific ways in which socialization varies from one society to another, as in various reports by Margaret Mead (1939, 1949). Whereas the earlier anthropologists were usually not much interested in socialization as an aspect of culture, there is now available a better general understanding of the process and a considerable body

of information about how socialization is achieved in various societies. A survey of some of these uniformities and variations, with references to the original ethnographic sources, may be found in Whiting and Child (1953). A bibliography of ethnographic reports which have good coverage of socialization customs is included in a publication by Heinicke and Whiting (1953).

A second movement has to do with the effects of socialization on personality. If socialization produces conformity to specific cultural demands, does it also produce (perhaps with much less intention or awareness on the part of participants) conformity to a modal personality characteristic of the particular group? This question was some years ago of great concern to Sapir (whose papers on culture and personality have been gathered together in Sapir, 1949), Margaret Mead (in the publications which have been cited above), and Ruth Benedict (1934). Their influence has led to its being a central concern of many anthropologists; examples of anthropological thought on this question may be found in Linton (1945) and in Chapters 25 and 26 of this volume

A second discipline of great influence is psychiatry, and in particular the psychoanalytic movement. Where anthropology has contributed a clear awareness of the importance of socialization, psychoanalysis has contributed a wealth of specific hypotheses about the influences of socialization on personality. The literature of psychoanalysis is permeated with suggestions of this sort, sometimes couched in the form of generalizations but often implicit in the interpretative analyses of individual life histories Among the classics here are Freud's *Three Contributions to the Theory of Sex* (reprinted in Freud, 1938) and Abraham's papers on character formation (reprinted in Abraham, 1927), the best guides to the literature are those provided by Fenichel (1945) and by Blum (1953).

To attribute a wealth of hypotheses about effects of socialization to psychoanalytic writers is in part an overstatement, for those hypotheses have in large part been suggested to others by the psychoanalytic literature, rather than being stated explicitly there. Many of the psychoanalytic statements themselves, particularly the early ones, were theoretical accounts of developmental sequences in personality, with little attempt to hypothesize clearly the role of socialization as separate from the role of maturation. Yet, vague though the hypotheses have been in their original statement, their influence has been very great.

A major step forward in the study of socialization has come with the bringing together of these two influences. This convergence may well be illustrated by Sapir's articles, already referred to, by Dollard's (1935) critique of case histories written by psychiatrists, anthropologists, and sociologists, largely from the point of view of the awareness of socialization exhibited in them, by Davis and Dollard's (1940) attempt to write life histories which would combine the insights of psychiatry and of the social sciences, and by the attempts of Kardiner and his anthropological collaborators (1939, 1945) and of Erikson (1950) to study single primitive cultures in the light of the psychodynamic findings of psychiatry.

Within academic psychology, meanwhile, there have been two main developments which have gradually been merging with these influences from other disciplines. One is the study of child behavior. Psychologists who have studied child behavior in the past have often favored a simple descriptive approach, carefully tracing changes in behavior through childhood, but showing little interest in the factors responsible for those changes or else assuming them to be primarily maturational The relevant influence of this aspect of psychology has come with the gradual growth of interest in studying, among other things, the environmental factors that play some part in determining the development of child behavior.

The other current development in academic psychology of great importance is the vigorous growth of general psychological theory As theory which purports to be of general application is increasingly developed, it tends to be applied in diverse areas, among these the socialization process. An important function of general theory in a specialized field such as this is the bringing of general knowledge of behavior determinants to bear on the planning of research. When variables and hypotheses are suggested by general theory as well as by the specific subject matter, the chances appear to be greatly increased that stable and interpretable relationships will be found, and that inconsistencies can be of clear enough import to lead to appropriate further research. Thus far the theory of greatest influence here is a behavior theory based on stimulus-response analysis (cf. Nowlis, 1952, Sears *et al.*, 1953; Whiting and Child, 1953; Winterbottom, 1953)

These various influences are increasingly converging to produce a body of knowledge which is dependent on the contributions of all these disciplines. But as yet this body of knowledge is not far advanced. There is no hard core

of well-established and interrelated principles around which the study of socialization is focused. There are, rather, a large number of ill-assorted concepts and very tentative hypotheses. Some steps towards better organization of present knowledge and of future research may be made by reviewing major variables that can be distinguished in work done up to the present. A first step is to consider the various uses to which variables in socialization might be and have been put.

Uses of Socialization Variables

Once variables in the socialization process are distinguished, they may have several different uses in the scientific study of behavior. Let us describe these uses through illustration, using severity of weaning as a typical socialization variable.

1. *Descriptive* The variable may be used in a qualitative description of socialization in a particular family or society, as in saying that weaning among the Kwoma is severe

2. *Normative.* The variable may be used for explicit and fairly precise comparison of various families or societies Compilation of normative data may permit one to say, e g., that a particular family is about at the median with respect to severity of weaning, or is about at the 90th percentile.

3. *Structural.* The variable may be incorporated in a study of the structure of interrelationships among various socialization variables. For example, severity of weaning might be negatively correlated with age of weaning, and positively correlated with severity of toilet training. This use may be called structural because it is ordinarily concerned with portraying a structure of relationships, rather than with testing a hypothesis about a causal sequence.

4. *Consequent.* One may study what conditions influence this variable. Thus severity of weaning might be found to be influenced by the types of food available as a substitute for mother's milk, by the family structure, or by whether the mother works outside the home. Severity of weaning is then being treated as a consequent variable, studied in relation to its antecedents.

5. *Antecedent.* One may also study what other conditions are in turn influenced by the variable of socialization. Severity of weaning might be found to affect the individual's later anxiety about food, or to influence the degree of his dependence upon adults. Here severity of weaning is the antecedent variable.

6. *Hypothetical.* In the previous uses, variations in severity of weaning are actually observed, here they are not. A theory about the effects of severity of weaning might lead one to predict that dependence and anxiety about food should vary together because they are both consequences of severity of weaning. A study of adult personality, in which dependence and anxiety about food are found to be positively correlated, might then be taken to provide some indirect evidence in support of this theory. But in such a study severity of weaning, not being actually observed, appears only as a hypothetical variable used for explanatory purposes.

As has been implied in discussing sources of ideas and evidence, scientific interest in socialization has been, and will probably continue to be, centered primarily around the influence of socialization variables upon the later behavior of the person being socialized — that is, upon their use as antecedent variables This central position of antecedent variables of socialization will be reflected in the content of this chapter, although at the same time examples will be given of the other uses which have been described. There are studies in which the socialization variables have appeared almost exclusively as descriptive variables (as in many ethnographic reports), normative variables (e g., Anderson, 1936), structural variables (e g, Baldwin, Kalhorn, and Breese, 1945), or consequent variables (e.g, Murdock and Whiting, 1951; Aberle and Naegele, 1952) But in view of the dominant interest in the effects of socialization, these other uses of socialization variables are likely to be most fruitful when they are guided, in the selection and definition of variables, by hypotheses about the effects of socialization. This point is elaborated at some length in recent publications by Nowlis (1952), Sears *et al.* (1953), and Whiting and Child (1953).

Systematic socialization research has generally involved the relating of single consequent variables to single antecedent variables of socialization. This represents a degree of simplification which does not seem likely to continue indefinitely. The testimony of the clinic and of daily experience would suggest that a given variable of socialization may have very different effects according to what other external variables are operating simultaneously, or according to the person's pre-existing personality characteristics. But multivariable re-

search adequate to deal with this complication has hardly been begun, and is perhaps most likely to have a fruitful origin in a pursuit of the simpler research to a point where its inadequacies can be clearly seen.

Something should be said in this section about the consequent variables of behavior to which socialization variables are related as antecedents Problems in the selection and definition of these variables will not be considered here except as they are touched upon in the following section on problems of evidence, the reader may be referred to the excellent discussions by Nowlis (1952) and Sears *et al.* (1953). But three points need to be made because they are relevant to the coverage of this chapter

A number of studies of socialization have taken as the dependent variable some evaluative variable such as delinquency, neuroticism, or adequacy of adjustment. These studies will not be reviewed here. To the present writer, it seems likely that the very behavioral meaning of these variables is so different in various individuals, and the antecedent-consequent sequences which may lead to a person's being assigned to a given position on a scale of adjustment so diverse, that such studies are of little use in furthering our understanding of socialization. Studies using these dependent variables may be justified on grounds of urgent practical importance Ultimate improvement of our understanding of these evaluative variables, however, seems more likely to come by way of present devotion to the study of variables which have a more unitary behavioral meaning

Variables of aptitude and skill, such as general intelligence, may also be studied as consequent variables. There is a long history of interest in variables which influence intelligence and more specific abilities. Most of this research has been concerned with the relative importance of hereditary and environmental variables as a whole, rather than with the precise identification of the relevant environmental variables, and hence does not greatly contribute to understanding the effects of socialization Recently Davis (1949) has stimulated pursuit of this more detailed understanding through his emphasis on the effects of social-class membership on intelligence-test performance Case-study analysis by Davis and Dollard (1940) suggests what some of the relevant socialization variables associated with social class may be There is a beginning of systematic research (e g., Milner, 1951; Haggard, 1954) which should advance our knowledge here, and it is also being contributed to by continuing research which is not oriented toward understanding social-class differences (e g , Klatskin, 1952a; Wittenborn, 1954). But this detailed research on socialization variables as an antecedent to intellectual functioning has not yet gone very far, and no attempt will be made to review it here

Finally, specific social and political attitudes are not included among the consequent variables to be dealt with here, as this topic is treated elsewhere in this book.

Problems of Evidence

The scientist who is studying socialization encounters numerous problems about how to obtain and how to evaluate evidence. Many of these are basic problems of method common to all fields of social psychology, and do not need detailed consideration here. Attitudes taken toward methodological problems, however, necessarily influence the content of any survey of research, and brief attention must be given to these problems in order to indicate the attitudes taken by the present writer. Since the principal focus of attention here is on variables of socialization as antecedent variables, the problems will be discussed with reference to that use of the variables.

How is evidence to be secured that will indicate with maximum dependability that a given variable in socialization is or is not antecedent to a given variable of later behavior? It might be imagined that an experiment provides the ideal method. Children might be randomly assigned to different levels of the socialization variable, some for example being severely weaned and others mildly weaned, a lasting effect could be determined by study of their personality characteristics later in childhood or in adulthood. This sort of study is not likely to be done on any large scale. Ethical considerations prevent many possible experiments, the scientist's lack of power prevents others, and practical difficulties would prevent most of the rest. In addition, while such studies can demonstrate very nicely that the experimental variable was a true antecedent, there is not necessarily any simple relationship between it and the eventual consequent as observed years later The experimental variable produces variations in the children's behavior, which are then responded to differentially by other persons whose behavior further influences that of the children, and so on. Knowledge about this sequence is so completely dependent upon non

experimental methods that the contribution of the experimental aspect of the design to the total study might turn out to be much less consequential than at first supposed.

Experimental method is, however, applicable to certain tests of hypotheses about the effects of socialization variables, where it is satisfactory to test a short-term effect of a variation which is feasible and proper for the scientist to introduce. Excellent examples of this use of experimental method are provided by experiments by Fales (1937) and Keister (1937), and by the experimental portion of a study by Hollenberg and Sperry (1951), all of which are described later in this chapter Such applications of experimental design will probably become more frequent as hypotheses about socialization variables become more sharply defined, and they should play an important part as a supplement to the greater body of information obtained by other methods

For knowledge about the effects of socialization variables we must expect for the most part continued reliance upon correlational rather than experimental method. The correlational method in ideal form, as applied to this subject matter, might be described as follows: The scientist proposes to test a hypothesis which states a relationship between an antecedent variable of socialization and a consequent variable of later behavior. He obtains evidence about how a number of people have been treated, with respect to this particular variable of socialization. He obtains evidence about the later behavior of the same people, with respect to this particular consequent variable. He then tests whether the two measures are dependably related to each other in the way predicted by the hypothesis. He concludes either that the observed relationship tends to confirm the hypothesis, or that it does not; e.g., he may conclude that severity of weaning appears to influence later anxiety about food, or that there appears to be no such relationship.

For purposes of the present analysis it does not matter whether the scientist started out with a definite hypothesis which he confirms or fails to confirm (although for other purposes it may matter a great deal). The hypothesis he confirms may state a relationship exactly opposite to what he expected when he began the research, or the hypothesis may only be a way of stating a relationship which was first thought of when found in the data. In any case, if a hypothesis is a tentative statement of a relationship between two variables, the scientist would like to choose between two possible inferences from his data: that the data tend to confirm the hypothesis (and lead him to predict further confirmation in the future) or that the data fail to confirm the hypothesis (and lead him to expect no important confirmation in the future) Results which lead to these inferences may be called positive findings and negative findings, respectively, and the inferences themselves positive and negative conclusions

In deciding between a positive and a negative conclusion, the scientist must depend upon statistical inference, which by its nature cannot be infallible But quite apart from the problem of statistical inference, either of the two conclusions he may reach is subject to two other serious sources of possible error. (Error does not refer here to an act for which the scientist should necessarily be blamed. It simply means that the scientist's inference about the outcome of future tests of the same hypothesis will not be confirmed.)

If he concludes that the hypothesis is probably correct, he may in the first place be in error because of the operation of extraneous variables. There may be no true antecedent-consequent relation between the two variables which have been observed; they may both, for example, be consequences of some extraneous variable which has not been observed at all. A high positive correlation between severity of toilet training and a child's later aggression might be attributable entirely to the operation of maternal rejection of the child as an important antecedent to each of these variables. If the scientist anticipates other variables that might provide alternative explanations of his results, and measures them too, he may through such techniques as partial correlation be able to rule out or test these alternatives This is often an important step to take, yet it can in no case absolutely resolve the problem, for there will always remain an infinity of other extraneous variables which cannot be attended to.

If the scientist concludes that the hypothesis is probably correct, he may also be in error because he has inappropriately labeled his empirical variables. What he has called severity of toilet training, for example, might conceivably be only a measure of the mother's frankness in admitting her severity to an interviewer and not at all related to actual severity, and the mother's frankness may grow out of general personality characteristics which have an important influence on the child. What he has called amount of aggression might be more appropriately labeled general social responsiveness. In such an event, the scientist may indeed have evidence of a genuine antecedent-consequent relationship, but since he has labeled one

or both variables inappropriately, his interpretation of this relationship as relevant to his hypothesis and to the theory out of which the hypothesis grew is erroneous. To such an objection, the scientist may reply that his labels refer only to the variables as he has measured them But certainly to his readers, and most probably to himself, the labels will signify not just the specific operations used but a whole class of possible operations, and if the specific operations are placed in the wrong class the conclusion will be misleading. Again, care in planning research can eliminate some of the obvious difficulties of this sort too, but can never give perfect assurance of appropriate labeling.

The scholar who pursues systematic research on socialization thus confronts problems which are, in their own way, quite as formidable as those confronted by the clinician-scientist who formulates hypotheses on the basis of his clinical understanding of individual patients. He is spurred on in his efforts, however, by the possibility that these difficulties will be resolved not in any one piece of research but through the cumulative implications of a large body of research If a hypothesis about a single antecedent-consequent relationship is confirmed in a great variety of very different situations, where it is implausible that extraneous variables would be operating in a uniform fashion, confidence in it may be greatly increased. If, in the course of accumulating such knowledge, a single theoretical variable is measured now one way and now another, and consistent antecedent-consequent relationships are found, it is possible to judge with greater confidence that a label appropriate to the whole class of operations used is appropriate for any single one of them.

Parallel possibilities of error confront the scientist who concludes that the hypothesis he is testing is not confirmed and who, in effect, recommends that the hypothesis not be further investigated. This recommendation may be a poor one because a true relationship has in his study been obscured by the influence of extraneous variables. Someone testing the hypothesis that amount of frustration of a child by his mother would be a positive antecedent of amount of aggressive behavior displayed by the child toward his mother, for example, might well emerge with a zero correlation. Perhaps the reason is that the severity of the mother's punishment of her child's aggression towards her is positively related to her general frustration of the child, and negatively related to his display of aggression toward her, so that for a random sample a true relationship between the two variables being measured is obscured Had the mother's punishment of aggression also been measured or otherwise controlled, the original hypothesis would have been confirmed

A negative conclusion about the probable validity of the hypothesis may also be in error because of inappropriate labeling of the variables If what is labeled severity of toilet training really would be more suitably labeled parental frankness, a finding that it is not related to the child's aggression conveys no information relevant to a hypothesis that severe toilet training makes for high aggression The same must be said about a measure of the child's aggression if, for instance, it measures only response to a highly specific situation in which response is little determined by general personality characteristics. If no relationship is found between severity of toilet training and the child's aggression, and either of the empirical variables is inappropriately labeled (or, to put it another way, the theoretically defined variables have been measured by invalid or unreliable techniques), it would be a mistake to conclude that the results provide any basis for predicting whether the hypothesis will be confirmed when the study is repeated in the future with more appropriate measures.

Here again there is no way of being very certain, from the data of a single study, whether negative findings have behind them one or both of these two kinds of error, or whether instead they give good reason to expect that the negative findings will be repeated when the same hypothesis is tested in other situations. Confidence in conclusions will again be influenced by prior accumulation of knowledge, as well as by attention to these possible errors in planning the research. Prior research may have indicated that the antecedent and consequent variables to be used in this study are likely to be closely related to certain extraneous variables, and it may be wise to measure or control these extraneous variables. Or, other research may give some reason to believe that certain extraneous variables that might have been thought important are, in fact, not likely to be correlated with the variables used in this study, and hence cannot provide a plausible alternative explanation. Finally, if the empirical variables now employed have been used in previous studies, and have there consistently shown antecedent-consequent relationships such as would be expected from the labels now given to them, negative findings in this case may with some confidence be used to infer that the par-

ticular antecedent-consequent relationship now being tested does not hold true (or at least is no greater than the confidence limits of the negative finding)

For confident interpretation of findings on socialization variables as antecedent variables, then, a considerable body of accumulated knowledge is necessary. The plain fact is that this body of accumulated knowledge is not yet in existence For any single finding reported in this chapter, whether positive or negative, it would doubtless be possible to find a plausible alternative explanation based on suppositions about extraneous variables or about the inappropriate labeling of the variables studied For many findings it would be possible to cite further evidence that would support or question these alternative explanations. However, space limitations make such discussion impossible In general, an effort has been made to mention only the minimum facts about measurement, and not to undertake a full critique. Thus it should be made clear that most of the separate items of evidence cited in this chapter, both positive and negative, rest upon a very tenuous base For example, all the cross-cultural evidence is dependent upon ethnographic reports which, until recently, have given scant attention to socialization, and which are usually of unknown reliability and validity Studies of individual differences are dependent on interviews, questionnaires, observations, and projective techniques which, while often highly reliable, are of unknown validity as indices of the theoretical variables they are intended to measure These facts must not discourage the pursuit of scientific study in this field, however, for it is only through such study that the relative validity of various techniques can be established.

A definite bias of the author has influenced the relative attention given to various findings This bias is that in the early stages of development of a branch of knowledge positive findings are of more consequence than negative findings Negative findings cannot be altogether neglected, else one may build a structure of pseudo-knowledge out of nothing but random error. But where little is yet known about the proper labeling of the empirical variables in relation to theoretically defined variables, and where little is known about the interrelationship of variables, it is the positive findings that seem to be of more consequence as at least giving some kind of structure whose strength can be tested in further research. Isolated negative findings have no very definite meaning so long as they remain isolated, and they offer little encouragement for the further research which could give them a proper context Isolated positive findings indicate that variables have been identified which give promise of showing a stable relationship, and they encourage further research directed at testing that stability and gaining a better understanding of the relationship. For this reason there will be an emphasis here on positive findings, though with an effort not to overlook negative findings.

Variables in the Socialization of Specific Systems of Behavior

"System" of behavior is used here, following the terminology of Whiting and Child (1953), as a convenient label for a set of responses and response tendencies which seem to share a common drive or goal. The label resembles Murray's "need" (1938) and other such terms in representing a classification of behavior by reference to drive or goal; it has the advantage, for present purposes, of referring not just to the drive itself but also to all the associated behavior organized around it. There is, of course, no absolute right or wrong about a classification of behavior into systems. A classification that is fruitful at one time for a certain purpose may at a later time or for other purposes be replaced by a different classification. The systems of behavior dealt with here simply represent some important categories which thus far have been fruitful in research.

In a sense, system of behavior may itself be regarded as a variable in socialization. Thus descriptive accounts may show socialization practices as varying from one system of behavior to another. Ethnographers not only describe the general treatment of children by parents in a given society, they describe also the treatment of the child's hunger, of the child's appeals for help, of the child's sexual interests, and so on The psychiatric case history, similarly, while it may deal in part with a general overindulgence or general domination of the child by its parents, is likely to give attention also to distinctive treatment of the child's oral or aggressive interests. Socialization and its effects, in short, are shown as varying according to the system of behavior which is being socialized. This concern does not, on the other hand, appear in every descriptive effort. One large-scale program developing techniques for the description of parental behavior in our

society, initiated by Champney (1941) and continued by Baldwin, Kalhorn, and Breese (1949) omits this variable altogether, analyzing parental behavior with respect to a number of characteristics but with no consideration of the system of behavior in the child being dealt with A choice here obviously needs to be made in the light of the antecedent-consequent relationships which someone is likely to want to test with the data. Where those relationships have to do with specific systems of behavior, then attention to system of behavior in the descriptive task is essential

Normative variables of socialization, on which data have been collected in a form to permit direct comparison of various individuals or groups, have also in some cases been defined with reference to systems of behavior Indeed, normative data have often been collected and reported in a highly specific way for particular systems of behavior, without much attention to the possibility that there might be something in common between the way parents treat different systems of behavior in their children. Normative data that are at least in part system-specific may be found for a sample of our society a generation ago in Anderson (1936); for different status groups in our society in Davis and Havighurst (1946), Ericson (1946), and Klatskin (1952b); for a sample of primitive societies in Whiting and Child (1953).

Structural analysis of systems of behavior in relation to other socialization variables is as yet rare in systematic research. One problem is how much consistency there is between socialization in different systems of behavior Two studies provide some information about this problem. In Whiting and Child's (1953) analysis of data on primitive societies, there is almost no relation between any variable of socialization for one system of behavior and the corresponding variable for another; for example, severity of weaning is not significantly correlated with severity of toilet training Sears *et al.* (1953), in a study of individual differences in our society, do find consistently positive correlations among severity of weaning, of toilet training, and of punishment for aggression. These correlations, however, are so slight as to indicate that these events are largely independent These results are rather fragmentary, but they suggest tentatively that when socialization variables are being studied as consequences they will probably need to be defined with specific reference to particular systems of behavior. When socialization variables are being studied as antecedents, of course, the more important question is whether the hypothesis to be tested is about a particular system of behavior or about some very general aspect of behavior, yet if socialization in various systems turns out to be highly consistent, problems will be created in interpreting specific antecedent-consequent relationships.

Structural analysis of socialization in relation to systems of behavior need not be confined to this problem of consistency among various systems. There are other problems having to do with absolute differences between systems For example, psychoanalytic accounts of "psychosexual development" might suggest a fairly uniform relation between system of behavior and age of socialization, with the major socialization of oral behavior coming first, followed by socialization of excretory behavior and then of sexual behavior. Is this sequence uniformly observable? The data assembled by Whiting and Child (1953) on primitive societies do not imply any high degree of uniformity, although the data on age are not altogether satisfactory Yet it seems clear that some large average differences in age of socialization of various systems of behavior would be found. It would also be valuable to know more about the use of various techniques and agents in the socialization of different systems of behavior

Consideration of system of behavior as a consequent variable would lead to such questions as these. Why do societies vary with respect to what system of behavior is the locus of the most severe socialization? Why do parents in our society differ from each other with respect to whether weaning or toilet training is begun earlier? Although such questions have interested ethnographers and clinicians in attempting to understand particular societies or individuals, there seems to have been little systematic research concerning these topics. What information is available at present is rather specific and time-bound. For example, Davis and Havighurst (1946) have shown that the dependence of socialization practices upon social status in the U.S varies with system of behavior, Negroes in their sample were less severe than whites in oral training but were more severe than whites in toilet training. Sears (1950) offers evidence indicating specific effects on socialization of various systems of behavior, attributable to ordinal position of the child and social status of the mother; e.g., upward mobile mothers were especially indulgent in oral training but especially severe in aggression control

Consideration of system of behavior as an antecedent variable of socialization leads to such questions as these. How does the effect of severe socialization vary according to the

system of behavior being socialized? How does the effect of early weaning differ from the effect of early toilet training or of early independence training? These questions ask about an interaction between behavior system and some antecedent variable of socialization — about how the effect of that other variable depends upon the system of behavior which it is acting on.

Questions posed in this general form have not often been asked in relation to existing data Yet they may have an important bearing on the interpretation of many research findings. A good deal of research has been concerned with the effects of some variable in the socialization of a particular system of behavior — for example, with testing whether age of weaning is correlated with later "oral" character traits If such a study has positive results, it is likely to be taken as a confirmation of the hypothesis But one alternative explanation is that the so-called "oral" character traits are correlated with early imposition of any aspect of socialization and really have no special relevance to age of weaning As has been shown, the structural information available does not give much support to such an interpretation, but not much information is available as yet. Meanwhile, positive conclusions about the specific consequences of socialization variables in particular systems of behavior have a real plausibility insofar as they confirm predictions based on general theory, whereas alternative explanations often lack this source of credibility

In any event, much research on antecedent variables of socialization has been directed at the specific effects of those variables in relation to particular systems of behavior, and that research will now be reviewed system by system It is convenient at the same time to consider instances where purely hypothetical variables of socialization in the same systems have been invoked as an explanatory device, for such research is really directed at the same basic problems.

ORAL BEHAVIOR

"Oral behavior" is used here to refer to eating and to behavior directed at accessory goals of oral pleasure, such as sucking In the future finer discriminations may need to be made, but up to now the research to be reviewed is of such a sort that oral behavior may well be tentatively treated as a unitary system.

Several students of child development have been interested in fairly immediate effects of variations in the treatment of the infant's early oral responses. The effects which have been reported are so closely tied to the original oral tendencies, usually being simply a modification of them, that there has seemed to be little reason to doubt that they are genuine and specific effects of the oral training Dorothy Marquis (1941) has presented convincing evidence that variations in feeding schedule during the first ten days after birth lead to a learned modification of the restlessness which might indicate hunger, the onset of activity becoming to some extent associated with the habitual feeding time. Levy (1928) and Roberts (1944) have shown that fingersucking is in many cases associated with low or reduced opportunity for the infant to suck while nursing. Davis *et al* (1948) studied effects, during the first ten days after birth, of feeding the infant by cup, bottle, or breast. They found evidence that breast feeding, in comparison with the other methods, led to an increase in the time the infant would spend sucking a rubber-covered finger held in his mouth, but for the most part other behavioral measures failed to show significant differences among the groups treated in different ways. Sears and Wise (1950) found that infants weaned to the cup after 4 months were more disturbed by weaning than those weaned between 2 weeks and 3 months, and these in turn were more disturbed than those weaned still earlier or fed by cup from the time of birth. This finding clearly suggests a modification of oral behavior as a result of training, a modification which might be described in theoretical terms as an increase in sucking drive as a result of rewarded practice at sucking The same authors show that gradualness of weaning also influences the amount of disturbance produced at the time, with abrupt weaning being the most likely to produce great disturbance

In view of the general paucity of conclusive evidence about the effects of socialization, evidence which seems so decisive has special interest. Yet most students of socialization are more interested in the long-term effects of socialization as formative of a person's stable characteristics In such a context, the studies just reviewed are not as conclusive as they are in their narrower context Sears and Wise (1950) explored also the possible effects of infantile variables upon the extent of thumbsucking at a later age, two and a half years. Here they failed to find consistent and significant evidence of an effect of their two major variables, time of weaning and gradualness of weaning.

Several other studies have been directed at this problem of long-lasting effects of oral socialization. Unfortunately, most such studies

have been concerned only with a single antecedent variable, that of age of weaning. Orlansky (1949) and Thurston and Mussen (1951) have briefly summarized several studies of this sort. Most of these earlier studies use as consequent variable some measure of general adjustment, and report findings which tend to be contradictory. The only investigator who uses measures of specific personality characteristics reports negative findings. Thurston and Mussen also report a study of their own which relates age of weaning to a number of specific personality characteristics, measured with the Thematic Apperception Test. These concepts were suggested to them by the psychoanalytic concept of the oral character. Their findings are entirely negative. One other recent paper, on the other hand, reports positive findings. Goldman (1950) used self-rating questionnaires on a number of variables suggested by psychoanalytic statements about oral character, and derived from these a measure of conformity of the individual to an empirically derived type profile. This measure she found to be significantly related to age of weaning, "oral pessimism" being associated with early weaning and "oral optimism" with late weaning. The relation of the specific self-ratings to age of weaning is not given. It remains to be seen whether this study differs from those with negative findings because of using a more appropriate consequent variable, or whether a skepticism based on the other studies will turn out to be justified. It seems unfortunate, however, that so much work should have been done with age of weaning as the sole antecedent variable. This variable has often been given some relevance by assuming that earlier weaning in our society will be more traumatic than later weaning; actually, the only systematic evidence bearing directly on this question, that of Sears and Wise (1950), suggests that an opposite assumption is more likely to be correct.

Other antecedent variables in oral socialization are now beginning to be included in systematic research. Sewell (1952) and Sewell and Mussen (1952) have dealt with bottle vs. breast feeding, scheduled vs. self-demand feeding, and abrupt vs. gradual weaning, as determined through interview with the mother several years later. They have related these to a number of consequent variables measured in several ways; most of these are measures of adjustment, but a few are measures of oral behavior (such as fingersucking and nailbiting) and some might be thought of as related to the psychoanalytic concept of the oral character. The results may fairly be described as completely negative. Sears *et al.* (1953) have dealt with rigidity of feeding schedule and with severity of weaning and, as will be mentioned again later, found significant evidence of a positive relation to dependence in the child at nursery school age. The consequent variables used by Sears *et al.*, probably have greater reliability and certainly have greater face validity than those used by the other authors; whether this fact is responsible for their obtaining positive results cannot be dependably judged at present.

Findings from cross-cultural studies thus far are more consistent than findings of these other studies. Whiting and Child (1953) obtained for a sample of primitive societies a rating of the severity of weaning; the rating was based on characteristics of the weaning which theoretically should influence the degree to which anxiety is learned as a response to oral activity. An index was then obtained of anxiety about oral activity in adult life; this index consisted of the presence of explanations of illness which ascribe illness to oral activities or to things associated with oral activities. A highly significant positive correlation was found between the severity of weaning and this index. On the other hand, no significant relation was found between infantile oral indulgence and an index of the security value of oral activities in adult life. It should be noted that in primitive societies weaning does not ordinarily occur in infancy, so that the positive findings here pertain generally to the effects of socialization in early childhood rather than in infancy.

In another cross-cultural study, Cohen (1953) has taken, as a variable in oral socialization, gratification versus frustration of the hunger drive during the first three years of life. He defines this variable empirically simply in terms of whether the ethnographer reports infants to be fed on demand. He then correlates this variable with economic competition in adult life. Economic competition is defined by reference to four criteria, which Cohen states (1953, p. 416) as follows: "(1) the accumulation or hoarding of wealth, with the absence of a cultural prescription to share that wealth; (2) a sharp division of property within the family, that is, ideas of 'mine' and 'yours' among husband, wife, and children; (3) nonsharing of economic products, such as food; and (4) the use of wealth as an instrument of social mobility." Both variables are treated dichotomously, and for the 22 societies reported Cohen finds a perfect positive relationship between demand feeding and economic cooperation (15 societies showing demand feeding and cooperation, 7 societies showing an absence of demand feeding

and economic competition) This is a highly significant finding, although confidence in it must be somewhat reduced by the absence of information about guarantees against the introduction of bias in the sampling or judging of the cultures used

Variables of oral socialization have been invoked as hypothetical variables in several studies of intercorrelations among personality characteristics. Sometimes reference to hypothetical variables of socialization is explicit, and sometimes it is only implicit in the use of the psychoanalytic concept of oral character, which is the concept around which all these studies are centered (for a review of the concept itself, see Goldman, 1949 and 1950). Goldman-Eisler (1951) reports a factor analysis of scores on a number of self-rating questionnaires (mentioned above in connection with an earlier paper by Goldman). She finds two factors (pessimism-optimism and impatience-aggression-autonomy) which she feels correspond to two aspects of the oral-character concept which should be separated. Blum and Miller (1952) take as a primary index of orality the frequency with which a child makes nonpurposive mouth movements They then test the correlation between this index and a number of other behavior measures which are suggested by the concept of the oral character. For certain measures a positive relation is found and for others not, but altogether there are an impressive number of significant positive relationships Both these studies suffer somewhat in conclusiveness from the fact that only those variables were included for which an interrelationship was predicted, and it is hard to feel confident of how the interpretation might be altered if supposedly irrelevant variables had also been included.

This difficulty is avoided in a study by Barnes (1952), which for the first time reports the interrelations among a number of variables specifically suggested by the Freudian account of oral, anal, and phallic stages of development. Descriptive adjectives were selected from psychoanalytic accounts of oral, anal, and phallic character trends, and for each adjective a number of items were prepared on which self-ratings or agreement vs. disagreement might be indicative of the personality characteristics referred to. A large sample of college men filled out the questionnaire and were scored for each of the separate traits. The intercorrelations of the traits were then calculated, and the matrix was factor analyzed. The factors that emerged did not, in general, correspond to the three-way classification of oral, anal, and phallic traits (although some exceptions will be mentioned later). Barnes gives in full the intercorrelations of traits, so that the reader who is skeptical of the appropriateness of Barnes' inferences about which traits should be associated according to Freudian theory can check any more specific hypotheses he may wish With respect to the value of the concept of the oral character as applied by Barnes, however, the outcome of his study is clearly negative

Barnes' negative findings are somewhat more convincing than Goldman-Eisler's positive findings. In comparison with the study by Blum and Miller, however, the appropriateness of Barnes' data may be questioned Blum and Miller's behavioral observations seem to have greater face validity, in relation to the psychoanalytic concepts, than the questionnaire responses of Barnes' subjects Relatively high face validity also characterizes the techniques used in a study of school children by Sanford *et al.* (1943) While Sanford *et al* made no attempt at an over-all evaluation of the concept of the oral character, they imply a use of this concept as a hypothetical variable in interpreting certain structural findings about personality intercorrelations. Concern with food and drink in TAT stories was found to have a pattern of intercorrelations with behavioral variables which in the opinion of Sanford *et al* (1943, p. 180) provides "a slight amount of evidence in favor of the theory that inhibited oral cravings may be sublimated through creative activity along literary or artistic lines."

The findings on specific effects of oral socialization may be summarized as follows. There is little doubt that variations in treatment of the infant's oral behavior have important immediate effects on his oral behavior With respect to more lasting or more general effects of oral socialization either before or at the time of weaning, no such definite conclusion is possible as yet from systematic research. The indirect approach through structural exploration of "oral character" has led to ambiguous results; it is too early to judge whether the positive findings are more dependable, and whether the negative findings have resulted from the use of relatively invalid or unreliable techniques. The more direct approach, of testing possible antecedent-consequent relationships, has also led to ambiguous results. Many of the negative findings may be due to choice of an inappropriate antecedent variable (age of weaning), or to low reliability and validity of both antecedent and consequent variables, but evidence is not yet sufficient to permit any very conclusive judgment on this point. The most

consistently positive evidence has come from cross-cultural studies.

It should be noted that there is one complete blank in our knowledge of effects of oral socialization. There appears to have been thus far no systematic study at all of the specific effects of those aspects of oral socialization which take place after weaning, despite the frequent mention of feeding problems and their treatment in discussions of childhood adjustment Baldwin (1945) has, however, studied the later feeding behavior of children in relation to general variables of parental behavior, and his findings suggest promising lines of inquiry about oral socialization after the time of weaning.

EXCRETORY BEHAVIOR

Interest in effects of toilet training has arisen largely from the psychoanalytic concept of the anal character (see, for example, Abraham, 1927, Fenichel, 1945) This concept has led, in several studies, to the use of purely hypothetical variables of toilet training as a possible explanation of observed correlations among personality characteristics. Sears (1943) has summarized two sets of findings of this sort. The most striking are the findings of Hamilton (1929), using as an index of anal tendencies the recall by adults of childhood anal erotism or constipation, he finds that several traits which might be a part of the psychoanalytic picture of the anal character (e.g., stinginess or extravagance) are positively associated with this index both in men and in women. Sears reports data of his own which indicate positive correlations among three traits included in the concept of the anal character (stinginess, orderliness, and obstinacy). MacKinnon (1938), in a comparison between men who violate and men who do not violate a prohibition, points out that the nonviolators are conspicuously conscientious, and that it is in line with the concept of the anal character that they are found also to show in greater frequency than the violators various responses which might be interpreted as substitutes for coprophilic activity. More recently, Alper and Blane (1951) have shown that middle-class children in our society become inhibited in finger painting at an earlier age than do lower-class children, they point out that this fact, when put together with data about differences between the two classes in toilet training practices, is consistent with the psychoanalytic concept of the anal character.

Unfortunately, most of these interpretative appeals to the concept of the anal character appear to be by-products of studies which were for the most part guided by other interests. There appears to be only one study (Barnes, 1952) in which exploration of the concept of anal character (along with oral and phallic character) was a main objective. The outcome of this study is not nearly as negative for the concept of anal character as it is for the concept of oral character. The author points out that all the traits with the highest loadings on his Factor I (orderliness, meticulousness, reliability, law abidance, and cleanliness) are traits suggested by the concept of anal character, although a number of other presumably anal traits do not have high loadings on this factor. Apart from this, Barnes interprets his findings as discouraging with respect to the concept of anal character. This is evidently because he feels the question is only whether all the traits that have been mentioned by psychoanalysts as anal are in fact associated Actually, if interest is shifted from this global evaluation of the concept to specific hypotheses which may be suggested by it, there is additional indication of positive findings in Barnes' study For example, his Factor IX has high loadings on punctuality, obstinacy, and antifeminine feelings, and the first two of these have been called anal traits. The fact that punctuality and obstinacy go together is of interest even if they are little associated with other so-called anal traits, and it remains to be determined whether they are associated with some specific aspect of toilet training or rather, as Barnes suggests, entirely with other antecedent variables

The use of variables of toilet training as antecedent variables seems to be confined to a few very recent studies In their cross-cultural study, Whiting and Child (1953) related measures of anal socialization to various indices derived from magical customs These indices were chosen because either the concept of the anal character or the notion of generalization suggested that they might be representative of personality characteristics which would be influenced by anal training While there was some indication of correlations in the predicted direction, there were no consistently significant findings Even more negative are Cohen's findings (1953) in testing for a possible relation between aspects of toilet training and his index, described above, of economic competition in adult life. The Freudian concept of anal character might suggest that this index should be related to toilet training Since Cohen used an extremely small number of societies, all that can be concluded is that there is no relationship strong enough to appear in spite of the very small sample of cases. Wittenborn (1954), on the other hand, in a study of individual differ-

ences among 5-year-old children, finds a significant correlation of +0.31 between severity of toilet training and a measure of compulsive tendencies in the child. The measures used here are certainly more closely akin to the original context in which the concept of anal character was devised than are the measures used by Whiting and Child, or by Cohen.

Less oriented toward the concept of anal character are several other recent uses of toilet training variables. Sewell (1952) reports relationships between toilet training variables and measures of adjustment, finding that for the most part they are not significant. In a study by Sears *et al.* (1953), severity of toilet training was one of several antecedent variables intended to measure frustration in socialization, and to be related to later dependent and aggressive behavior. Stable relationships were not found for this variable, although there was some suggestion, in boys only, of a positive relation of severe toilet training to aggression and to general activity. Much more consistent evidence of a positive relation between severe toilet training and aggression is provided by Wittenborn (1954). He obtains significant evidence of this relation in two separate studies, one of five-year-olds and one of eight-year-olds. Against this very striking outcome, however, must be set the fact that Sewell's study (1952) included several measures of aggression which did not show a consistently significant relation to variables of toilet training. Wittenborn also finds consistent evidence of a positive relation between fearfulness and severity of toilet training, where Sewell does not. Wittenborn's positive findings are based on a general antecedent variable of severity of toilet training, whereas Sewell's negative findings are based on much more specific items. This fact leads the present writer to give rather more weight to Wittenborn's findings.

The net effect of these studies, combined with the structural studies in which anal character has seemed to be a useful hypothetical variable, is at most to offer some slight encouragement for further study of long-lasting and remote effects of toilet training on personality. This future research may be of increased value if it is guided by clearly formulated hypotheses about the learning occurring in toilet training and about how it might generalize. The concept of anal character, suggestive though it is about possible dimensions of generalization, is not really associated with any very precise hypotheses about antecedent-consequent relationships.

Psychoanalysts have also presented some suggestions about specific effects of bladder training, and have here used the concept of the urethral character (cf. Fenichel, 1945). Thus far there seems to have been no systematic research which has been guided by this concept or which provides evidence clearly relevant to it.

SEXUAL BEHAVIOR

Because of the special interest in sexual behavior *per se*, evidence has been systematically assembled about variations in adult sexual behavior, and these variations have then been in considerable part considered to be a consequence of variations in the socialization of sexual behavior. Thus Ford and Beach (1951) survey a number of variations in the sexual customs of human societies, and conclude that these variations must be attributed primarily to differences in the conditions of learning rather than to genetic differences among societies. Kinsey, Pomeroy, and Martin (1948) report great variations in sexual behavior related to indices of social status within our society, and also conclude that the origin of these variations must be found in conditions of learning rather than in genetic variables. In both of these studies there is some discussion of the specific variations in sexual socialization which might be responsible for the observed differences in sexual behavior. But evidence for the variations in socialization, and for the relation between these and the variations in sexual behavior, is throughout much more informal, either in origin or in treatment, than the evidence for the variations in sexual behavior. These studies, however, make an important contribution in disposing of the naive view that variations in human sexual behavior are entirely ascribable to genetic factors. But while socialization variables are thus shown by elimination to have great importance as antecedents to adult sexual behavior, we do not yet have an adequate scientific basis for stating the exact relationships involved. Nor do we have as yet an adequate basis for judging the extent to which variations in adult sexual behavior are to be ascribed directly to variables in sexual socialization, and to what extent they are instead to be considered as indirect effects of variables originally pertinent to other systems of behavior. A suggestion that such indirect effects may turn out to be of great importance is to be found in the evidence offered by Kinsey *et al.* that men who change their social status already tend to show, before the change occurs, sexual behavior of the stratum they will move into

rather than the sexual behavior of the stratum in which they were reared. If this evidence is correct, it may be that sexual behavior of the adult is in such instances greatly influenced by, for example, the development of a strong drive for achievement.

Direct evidence about the effects of sexual socialization on the sexual behavior of the adult comes primarily from certain studies which have been directed at surveying or understanding the sexual behavior of adults. In several of these studies, the subjects have been questioned about their own sexual behavior and also about various facts in their life history, which might have something to do with sexual socialization. Thus Terman (1938) explores the relative frequency of orgasm in married women as correlated with a number of background factors Those most pertinent to sexual socialization have to do with the provision of sexual information to the child. There is fairly consistent evidence in Terman's study, only a part of it statistically significant, that orgasm adequacy is positively related to reported history of adequate information obtained early in life from parents or other responsible adults in an atmosphere of frankness Similar findings with respect to age at obtaining sexual information and parent's attitude in response to sexual curiosity appear in Hamilton's (1929) data on correlates of orgasm adequacy; some of the differences obtained between an adequate and an inadequate group are quite large, although the cases are too few for these findings to be significant (cf the analysis by Ferguson, 1938b). In a somewhat comparable study by Landis *et al* (1940), parallel correlations were apparently tested and not found to be significant. These studies suggest that the provision of sexual information to the young girl (as measured by her report in adulthood) does not have any large and consistent relation to her experience of orgasm in marital intercourse. They are referred to here primarily to make the point that this little bit of information is about all that is yet available from systematic research about the effects upon adult sexual behavior of variables in sexual socialization.

The studies which have dealt with orgasm frequency in married women have also provided a little information about correlations between certain variables of sexual socialization and adult behavior variables outside the sexual system. This is especially true of Terman's study, which focused on a general variable of marital happiness. Among the variables that seemed appreciably related to marital happiness was the report of parental attitude in response to childhood sexual curiosity

Freudian theory has given special prominence to two concepts relating to the development of sexual behavior — the castration complex and the Oedipus complex Several empirical studies have been concerned with these concepts, although none of them have dealt directly with antecedent variables of socialization and the hypothetical variables introduced into the discussion by implication are usually not made clear Freudian theory itself is somewhat unclear about the exact role of socialization pressures in the development of these complexes, and those attempting systematic investigation have usually not been concerned with taking a position on this problem.

In the case of the castration complex, most publications so far have simply been concerned with how common castration fears are, evidence on this point is briefly reviewed by Friedman (1952, pp. 70-71) Blum (1949) used a projective test with college students to study the interrelations among various possible foci of conflict or disturbance His findings suggest that disturbance about castration is positively related, in male subjects, to disturbance in the oral and anal systems of behavior (all as measured by response to the dog pictures of the Blacky Test). He interprets both these findings as consistent with psychoanalytic statements about the influences of earlier-established oral and anal fears upon development in the phallic period. Friedman (1952) used another projective test, in which the subject is asked to complete stories in which potential phallic symbols are conspicuous, to study children's tendency to give responses which might indicate anxiety about castration While Friedman's inferences about the incidence of castration fears seem not altogether justified by his data, he does present striking findings about the variation in story completion with age, findings which are strongly suggestive of special anxiety about castration symbols at the ages of 5 to 6 and again just before puberty. Child (unpublished manuscript) finds, for college students, highly stable correlations between manifest fears of damage to the genitalia and damage to the eyes and limbs. This finding might suggest confirmation of the psychoanalytic hypothesis that the latter two fears are expressions of the former. When, however, he correlated these fears with an attempted index of general restrictiveness of sexual socialization (provided by the age at which various items of sexual information were remembered as being obtained), he obtained no results which were at all conclusive.

The Oedipus complex as an object of sys-

tematic empirical study is in a position similar to that of the castration complex. Most studies have been concerned with whether something to be called the Oedipus complex is a common occurrence in our society. Such studies, which have been briefly reviewed by Sears (1943) and by Friedman (1952), suffer from using techniques (such as asking the subject which parent he prefers) which seem too remote from the hypotheses to be investigated. Interesting results have been obtained by Blum (1949) and by Friedman (1952) with the use of projective techniques which seem likely to be more appropriate, although in the opinion of the present writer both of these authors have considerably overstated the conclusions that may reasonably be drawn from their evidence. Friedman's concern is primarily with the question whether the Oedipus complex is a common phenomenon which can be studied by objective techniques. He approaches the question by studying sex differences in response to projective material containing mother figures and father figures. His method involves variation in the stimulus material for the two sexes, and it is not possible to judge how much of the sex differences may be due to unintended effects of this variation Despite this and other possible criticisms, it appears likely that Friedman has developed techniques which can be usefully applied in situations where these difficulties can be avoided. Blum is not concerned with the commonness of the Oedipus conflict so much as with whether interrelations between Oedipus conflicts and other disturbances will correspond with psychoanalytic predictions. He finds in females a correlation between Oedipal conflict and conflicts about sibling rivalry, and in males a correlation between Oedipal conflict and choice of a narcissistic love object (all as measured by the Blacky Test), and believes these findings to be consistent with psychoanalytic hypotheses.

The concept of the Oedipus complex also prompted certain aspects of the work of Hamilton (1929) and Terman (1938). It led them to take as antecedent variables the degree to which an adult subject says he was emotionally attached to each of his parents, and the degree of resemblance he reports (in physique or personality) between his spouse and his parent of that sex. These were then related to orgasm adequacy and to general marital happiness as dependent variables. Among the findings are some which are highly reliable and many which are not; again Ferguson (1938a,b) has prepared a useful statistical evaluation of Hamilton's findings. The findings do not, as a whole, fit into any one neat pattern, and they certainly do not fit into the pattern that Hamilton and Terman considered to be predictable from the concept of the Oedipus complex. But they do suggest very strongly that the psychological relationships between the child and his parents play a very important part in the development of his sexual tendencies. Additional confirmatory evidence for this thesis, though again rather indirect in nature, is to be found in recent work by Winch (1950) A better understanding of how these developments occur, and how they are influenced by other variables, awaits the formulation of various specific hypotheses and the devising of techniques suitable for their test.

AGGRESSION

Aggression is a system of behavior for which there has been common recognition of two kinds of effects of socialization — effects on the strength of the tendency to be aggressive, and effects on the control or inhibition of this tendency. These two effects will be considered in turn.

Freudian theory, in holding that aggression is at least in part a function of frustration, might suggest that the more frustrating the general process of socialization is, the greater the strength of the aggressive motivation built up in the child Dollard *et al.* (1939) made this view more explicit, although without taking any definite position about the time interval through which effects of successive frustrations may accumulate. There are now several studies which provide data bearing on this simple frustration-aggression relationship as applied to the cumulative origins of aggressive behavior in the frustrations of socialization.

First of all, a number of studies dealing with general variables of parental behavior (such as will be mentioned briefly in a later section of this chapter) report relationships which might be considered favorable to this application of the frustration-aggression hypothesis. These findings are usefully summarized in very brief form by Radke (1946). There is some agreement that aggressive tendencies are positively correlated with parental rejection, with overprotection, and with parental disharmony, all of which might be thought of as frustrating to the child.

In recent studies which have attempted a more precise measurement of aggression and, in some cases, more direct measurement of frustration, there has been less uniformity of finding. Lesser (1952), measuring aggression in 10- to

13-year-old boys as seen by their agemates, finds a very marked positive relationship to parental rejection but no significant relationship to other potentially frustrating aspects of parental behavior. Wittenborn (1954), when he measures the aggression of children from information supplied by the mother, finds a positive correlation with measures (also based on maternal interview) of parental rejection, unsympathetic parental attitude, and severe toilet training. However, when his measure of aggression is based, for one of his two groups, on an interview with the child, these correlations disappear. Sears *et al.* (1953) find no evidence of a relationship between overt aggression of nursery school children and measures of infantile frustration. With scales intended to measure current and recent home frustration, there is also little evidence of a relationship to overt aggression. With scales intended to measure current and recent home nurturance, which might also measure absence of frustration, there is some evidence of a negative relationship with aggression in boys but the reverse relation was observed with girls. In a study of aggression in doll play, done with the same children, Hollenberg and Sperry (1951) find some evidence that fantasy aggression is positively related to a background of home frustration. Similar evidence, but far from statistically significant, is provided by Holway (1949). Quite clearly, these various results do not add up to uniform confirmation of a simple and direct relationship between amount of frustration in socialization and strength of chronic aggressive tendency.

But is there any sound theoretical reason to suppose that there should be such a relationship? The expectation of such a relationship seems to have been based upon the conversion of a principle of momentary psychodynamics into a principle of learning, without adequate attention to what could be predicted from knowledge about learning. More adequate attention to this problem has been provided by Sears *et al.* (1953), who point out that a crucial factor in determining what the child learns as a result of a given degree of frustration consists of how others respond to the way the child acts in the face of the frustration, and how the child perceives their response.

One important consideration is that if aggressive behavior is oriented towards causing pain or annoyance to another person, the development of such a tendency must depend upon the discrimination of responses which have such an outcome from those which do not. Sears *et al.* suggest that the discriminations required here may be too complex for any generalized habit of aggression to be established during infancy, and that this may be why infantile frustration seems to show no relation to later aggression For later ages, Sears *et al.* attempted to deal with this factor of discrimination (together with a factor of reward) by measuring the mother's responsiveness to the child's aggression. They feel the attempt was a failure because responsiveness was not adequately distinguished from punitiveness, but their suggestion here may provide a valuable clue to further research.

A second important consideration is that a reinforcement principle of learning would predict that frustration should lead to the learning of an aggressive tendency only if aggression is to some extent successful in leading to reward In the case of the child's aggression toward his agemates, there is some evidence that reward for aggression in the form of parental approval does lead to the development of aggressive tendency. Davis and Dollard's (1940) case studies of Negroes of varying class status emphasize the importance of this factor. Systematic evidence pointing the same way is provided by Lesser (1952), who finds strong support for the hypothesis that parental behavior which advises or supports aggression toward agemates will be positively correlated with a direct measure of such aggression.

Both these studies deal with later childhood. In the case of the initial acquisition of aggressive tendencies, it is presumably the response of the mother to the child's aggressive behavior toward her which is of most crucial importance (cf Sears *et al.*, 1953). When the frustrated child makes responses that pain or annoy the mother, does the mother tend to remove the source of the frustration? If paining or annoying the mother becomes itself a goal of the child's aggressive tendency, does the mother manifest her pain or annoyance so that the goal actually is provided to the child? If these are the crucial outcomes for the learning of aggression by the child, then amount of frustration should be related directly to strength of learned aggressive tendency only if increased frustration means a more pronounced occurrence of these outcomes. Whether this is so can only be determined by intensive study of mother-child interaction. The inconsistent findings so far suggest that no simple and uniform relationship will be found. A consistent relation may well be found, however, between the amount of chronic aggression and precisely those conditions of mother-child interaction which theory suggests should lead to its acquisition.

The second kind of generally recognized

effect of socialization on aggressive tendency is the effect of inhibiting or controlling aggression Punishment for aggression should lead to the learning of anxiety about the consequences of being aggressive in the future, and this anxiety should in similar situations serve to inhibit the overt expression of aggression. This point has been expressed very clearly by Dollard *et al.* (1939) and by Miller (1948).

One possibility in testing this idea is to take as the consequent variable some fairly direct measure of anxiety about aggression and to relate it to the inhibitory socialization of aggression. There seems to be only one study in which such a direct measure of anxiety has been used. Whiting and Child (1953), in their cross-cultural study, employ as an index of adult anxiety about aggression the tendency to explain illness as due to some aggressive act or some object generally associated with aggressive acts They find highly significant evidence that this index of anxiety about aggression is positively related to the severity of inhibitory socialization of aggression.

Another possibility is to take as the consequent variable some measure of the amount of aggression manifested. The simple notion that anxiety about aggression serves to inhibit its expression would lead to an expectation that severity of punishment for aggression would be negatively correlated with the amount of aggression later manifested. As pointed out by Dollard *et al.* (1939), however, this simple notion would be expected on theoretical grounds to apply only where the situation and aggressive acts involved in the punishment are more or less identical to those involved in the later behavioral observations. There seems to be only one source of systematic evidence available where this requirement is met, in the experimental portion of a study by Hollenberg and Sperry (1951). In one group of children engaged in doll play, the observer administered verbal punishment for aggressive play. This clearly diminished the amount of aggressive play in comparison with that shown in a control group, in accordance with the prediction just stated. That the change in behavior involved learning rather than immediate response to an external situation is shown by the fact that it was most pronounced in a subsequent session when the behavior of the observer was again uniform for experimental and control group. Evidence pertinent to this question that is based on socialization as practiced in the family over a long period of time would obviously be desirable.

If the measure of aggressive behavior is derived from situations or acts which differ from those involved in the original learning, then the anxiety acquired as a result of socialization may have a quite different effect. The statement by Dollard *et al.* (1939, p. 40) that "the greater the degree of inhibition specific to a more direct act of aggression, the more probable will be the occurrence of less direct acts of aggression" would predict a positive correlation between severity of socialization and amount of indirect aggression. This, however, is again an oversimplified statement of the matter. Analyses of displacement by Miller (1948) and by Whiting and Child (1953) show that either a positive or a negative relationship might be expected, according to the degree of indirectness. It is not surprising, then, on these theoretical grounds, that sources of evidence in which the relationship between the two situations is not clear fail to yield consistent findings. Thus Lesser (1952) finds some evidence, not uniform for all his measures, of a negative correlation between parental punishment of aggression and amount of overt aggression toward agemates. Wittenborn (1954) uses two measures of aggressive behavior, both referring in part to aggression toward parents and in part to aggression toward other children, and finds one to be positively related and one insignificantly related in the opposite direction to parental punishment for aggression. Sears *et al.* (1953) find that parental punishment for aggression shows a strong positive relation to overt aggression of boys as displayed in nursery school, but they also find some evidence of an inverse relationship for girls.

All of these sources of evidence are, of course, complicated, as Sears *et al.* point out, by the fact that parents are not the only people punishing the child for aggression, and further that an unmeasured amount of punishment for aggression has also occurred in the situations where the child is being observed. This difficulty can be to a considerable extent overcome, and a better judgment about the degree of similarity between the socialization situation and the test situation can be made, if the test situation is one of creating fantasy. This is done in the nonexperimental portion of Hollenberg and Sperry's study (1951), whose data are also reanalyzed and discussed by Sears *et al.* (1953). They report tentative evidence that high punishment for aggression at home is positively related to the amount of aggression expressed in the fantasy situation of doll play. Whiting and Child (1953) have a parallel test situation in the customary fantasy of primitive societies about malignant spirits and sorcerers. They

find a highly significant positive correlation between the extent of such fantasy about sorcerers and the severity of inhibitory socialization of aggression. Whiting and Child also report a relationship between degree of indirectness of aggressive fantasy and its strength, as a function of severity of socialization of aggression, which is consistent with predictions made from conflict theory. Similar predictions are confirmed by Wright (1952) in a study of folktales.

On the whole, then, these studies seem to offer strong confirmation of the hypothesis that the severity of inhibitory socialization of aggression is a determining influence on lasting anxiety about aggression. They also imply important cautions for further exploration of this hypothesis. Effort should be put into sharpening the definition of the situation in which socialization is occurring, of the situation in which the effects of the anxiety are measured, and of the relation between these two. Careful attention should be given to other simultaneous sources of aggression anxiety, and their relation to these two situations. The predictions to be tested should be made in the light of these considerations and of conflict theory. Finally, tentative hypotheses about the sources of aggressive tendency should be studied at the same time, as our ignorance in this area is very great.

That it is possible to make such definite recommendations about future research on socialization of aggression, and to support them with clear evidence, is attributable to the fact that this system of behavior has received a good deal of careful theoretical attention, and theoretical considerations have guided some of the existing research. There is every reason to believe that similar problems will be encountered in those other systems of behavior where socialization sets up a conflict between positive motivation and anxiety, and that research there, too, will be more fruitful when it is guided by a careful application of conflict theory as well as by basic principles of learning.

DEPENDENCE

Dependent behavior is taken here as essentially synonymous with Murray's (1938) term "succorance." It refers to behavior which seems to have as its goal the obtaining of nurturance from other people, or which clearly indicates that reliance upon the help of others is the individual's dominant method of striving for his goals. Two major aspects of socialization may be distinguished here. First, dependent behavior (as distinguished from the mere fact of helplessness) seems itself to be largely an acquired mode of responding, a mode of responding which is everywhere expected in the infant and the very young child. The extent to which the individual child becomes dependent, the objects of his dependence, and so forth, are presumably a result of interaction with his social environment and hence in part a function of socialization variables during infancy and early childhood. Second, the older child and adult are everywhere expected to be less dependent than the young child. There is thus a training of the child out of his initial degree of dependence (and often a change in the objects of dependence), with further variations among individuals emerging from this training as well.

Research on several general variables of parental behavior has turned out to have some relevance to the development of dependence. For example, Levy's (1943) report on cases of maternal overprotection is an invaluable source of hypotheses about the origins of dependent behavior in children. There has, however, been very little research explicitly oriented toward studying the socialization of dependence — that is, directed at studying in detail how dependent tendencies are established, how training out of dependence is accomplished, and what other effects follow upon these two aspects of socialization. The few studies which do have this explicit concern with dependence will be reviewed here.

With respect to the effects of infantile care on the development of dependence, there is a little evidence from research on individual differences in our society. In a study reported by Sears *et al.* (1953), dependent behavior of nursery school children as observed in the school and as rated by their teachers was related to measures of infantile treatment derived from interviews with their mothers. Amount of dependent behavior was found to be positively correlated with rigidity of feeding schedule and with severity of weaning, especially with the latter. Since these children were generally weaned in infancy, it may be said that later dependence was positively related to infantile frustration; an interpretation would be that infantile frustration establishes a lasting insecurity about dependence which motivates dependent strivings.

More extreme variations in infantile frustration are involved in studies which compare family-reared children with children whose infancy has been spent in institutions where adult care and attention to the infant is greatly reduced. Unfortunately, in only one of these studies has there been an explicit attempt to

measure dependent behavior as a consequent variable Wittenborn (1954) has compared adoptive children who lived in an institution for some months before adoption with others who were adopted at birth or soon thereafter. He finds a significant tendency for the institutional children to show less dependence at the age of 5 as determined in parental interview, the corresponding correlations with dependence as expressed by the child in a "social reactions interview" are so small they are not reported. A finding which seems to be in the same direction is reported by Spitz and Wolf (1946) who emphasize, in their description of institutional children, a generalized apathy which appears to mean a great reduction in dependence as well as in other forms of social interaction. In several studies by Goldfarb (1943a,b), on the other hand, while there is a similar stress on generally low social interaction, evidence is also provided that institutional children are in a sense overdependent and show exaggerated need for attention and affection.

Insofar as these studies suggest that the deprivation of infants through institutional rearing leads to diminished dependence on adults, the findings appear to be contradictory to those of Sears *et al.* These investigators argue, however, that there is not necessarily any contradiction here, as only in very unusual circumstances such as those of institutional care is adult nurturance of the child insufficient to develop a definite dependent tendency, and that above some threshold value the strength of the tendency may be more influenced by amount of frustration. The amount of frustration may be relevant in two ways (1) With dependence early established as the prime and eventually successful response to frustration, then the more the frustration the more is persistent dependence reinforced. (2) Frustration may lead to conflicting anticipations of being nurtured and of not being nurtured, and such conflict may be a major basis for drive acquisition.

There are also some data which suggest a continuation beyond infancy of a tendency for frustration in parent-child relations to be conducive to strong dependent tendencies. Thus Wittenborn (1954) finds some evidence (in 5-year-olds but not in 8-year-olds) that both of his measures of the child's dependence are positively associated with variables of parental behavior which might be frustrating. He also finds a positive relation with rejection of the child and with unsympathetic attitude, though not with punishment for aggression. Sears *et al.* (1953) report a similar frustration-dependence finding for boys, but some evidence of an opposite relationship for girls. Attempts to interpret this outcome lead them to postulate a curvilinear relationship between amount of frustration of a given drive and the amount of alternative activity (such as dependence) to which it gives rise. If this suggestion should prove fruitful for later research, it is quite as likely to be fruitful in application to other systems of behavior as well as to dependence.

The most explicit attention to the training of the child out of his infantile dependence has come in cross-cultural work. Whiting and Child (1953) obtained ratings of the severity with which the child is trained out of his infantile dependence — severity as judged by the amount of anxiety about being dependent which was likely to result from the training They related this rating to an index of adult anxiety about dependence This index consists of the presence or absence of explanations of illness which ascribe illness to spirit possession or to the loss of the soul (which is often thought of as leaving the body to commune with other spirits). Both these explanations of illness appear to represent a possible projective expression of anxiety about dependence, in fantasies of metaphorical dependence upon imaginary beings as a source of trouble. This index was found to be significantly and positively related to the severity of socialization out of dependence.

The same index of dependence anxiety in adulthood was also found to show a high negative relationship to the degree of indulgence of dependent needs before the beginning of this socialization. It would appear that frustration of dependent needs either during infancy and very early childhood, or at a time of forceful weaning into the greater independence of childhood itself, has substantially the same effect. This is consistent with the findings reported above for the effects of frustration on overt dependent behavior. The general agreement in findings for these two types of study — the one supposedly dealing with the positive development of dependent tendency, and the other with the development of anxiety about being dependent — raises a question as to whether such a distinction has actually been achieved in the research done thus far. Both types of study may simply demonstrate that anticipations of possible failure in strivings for dependence contribute to the strength of a drive for dependence (which may then be manifested either in overt dependent behavior or in worried concern about dependence). In future research there may be value in trying to separate out clearly the development of anxiety about punishment (other than failure) for dependent behavior.

It should then be possible to apply to dependence socialization the conflict analysis which has already proved of value in the case of aggression. A suggestive effort has been made in this direction by Sears *et al.* (1953), although they employ a very indirect estimate of anxiety about punishment for dependent behavior.

McClelland and Friedman (1952) have taken the measures of dependence socialization used by Whiting and Child and, for a small group of societies that have closely comparable myths, have correlated them with the frequency of achievement themes in these myths. They find that this index of concern with achievement shows the same kind of relation to variables of dependence socialization as does Whiting and Child's index of anxiety about dependence. This finding may indicate that worry about being dependent gives rise directly to worry about achieving (as a means of avoiding continued dependence). It is also quite likely, as McClelland and Friedman suggest, that severe treatment of the young child's dependence often grows out of parental values that also lead to continued pressures toward achievement.

The diminishing dependence of the child as he grows older must be in considerable part a result of the positive development of more independent modes of responding to the same situations which formerly elicited dependent reactions. Perhaps independence or autonomy will be a generally useful variable to study, although it has received little attention as yet. It is possible, on the other hand, that the development of a general tendency towards independence *per se* occurs only in a few societies or a few individuals, and that dependence is more characteristically replaced by several separate tendencies which compete with it, e.g., cooperative social interaction among equals or nurturance of younger or more helpless individuals. One such tendency that is clearly of great importance in our society and has received some attention in studies of socialization is achievement, and this we shall consider next.

ACHIEVEMENT

Reference to socialization variables in achievement as purely hypothetical variables, usually under other labels, has been fairly common. Thus Child (1946), studying children's preference for goals easy or difficult to obtain, made certain predictions about variations of this preference with age, sex, and experimental conditions. These predictions, which were to a considerable extent confirmed, were based on the assumption that the preference would be determined largely by what might be called achievement socialization. The underlying assumption about differences in achievement socialization as between the two sexes is strikingly confirmed, for one type of socialization pressure, in an analysis of the content of children's textbooks (Child, Potter, and Levine, 1946). But in neither of these studies is the connection between socialization variables and child behavior directly tested. Similarly, discussions of the variation with age in children's response to success and failure (see Sanford, 1946) and of level of aspiration (see Lewin *et al.*, 1944) have included some reference to hypothetical variables of achievement socialization.

Several experiments on children are relevant to the development of achievement-oriented behavior. In an experiment by Fales (1937), two specific variables in achievement socialization were studied as an influence on the independence of nursery-school children in putting on and taking off their wraps. Praise for the specific achievement, and training in the requisite skills, were both found to increase achievement-oriented behavior (refusal of help). An experiment by Keister (1937) concentrated on nursery-school children who initially showed little persistence in working at a difficult task. The experimenter trained them by giving them very easy tasks, and then progressively more difficult tasks, with repeated and specific praise whenever they did persist in trying to reach a solution by themselves, and with mild reproof of appeals for help and of giving up the effort. This training was found to produce increased persistence when the children were later tested on difficult tasks similar to those used in the original test. Somewhat more remote from the usual conditions of socialization is an experiment by Grosslight and Child (1947), in which it was found that persistence at a task was favored by previous experience of failure at the task eventually followed by success.

While all these experiments deal with learning in rather specific situations, tentative generalizations may be drawn from their findings. First, the development of persistent striving for achievement is influenced by social approval of this behavior and disapproval of its absence. Second, the development of persistent striving for achievement is also affected by the pattern of successes and failures resulting from such striving in the past, and this pattern results not only from approval or disapproval but also from the child's capacities, his physical environment, and other aspects of his social environment. This second generalization is of special interest because it brings out a point about

socialization that is often overlooked. Socialization is not just a matter of imposition of rules through reward for conformity and punishment for nonconformity Socialization is also achieved through manipulation of other aspects of the child's interaction with his environment Thus, where persistence in striving for achievement is an objective of socialization, parents may fail to reach this objective, despite their approval of the child's striving and disapproval of his failure to strive, if they permit the child's interaction with his environment to be such that his strivings for achievement are uniformly unsuccessful.

These tentative generalizations from experimental observations have received some confirmation from studies in which antecedents in the actual life situation have been investigated. Thus Wolf (1938), in studying the persistence of young children in working at tasks, made a case study of the family background of her subjects. She draws certain conclusions about the effect of socialization variables upon persistence, although it is not possible to evaluate the confidence which should be placed in them. She reports that a high level of persistence is associated with a level of performance demand from adults that is properly adjusted to the child's ability, and that a low level of persistence is associated either with unreasonable demands or with insufficient demands. These conclusions are suggestive of a joint effect of parental approval-disapproval and of success-failure. The effect of pertinent successes and failures in the life history is brought out very clearly in a study of level of aspiration by Pauline Sears (1940). She finds that an important determinant of children's level of aspiration in a particular task is their history of success and failure in tasks of the same general kind.

The most recent studies of achievement socialization have not been concerned with overt achievement-oriented behavior, but with the expression of concern about achievement through the inclusion of achievement-related ideas in stories told by the subject. McClelland *et al.* (1953) have summarized a great deal of recent research on this sort of measure of achievement tendency, by themselves and their associates, and some research on socialization variables as an influence on this measure is included. Most pertinent is a study of 30 college men, in which the frequency of achievement-related themes in TAT stories was correlated with ratings of several aspects of the child-training practices of the subjects' parents, both as rated by the subjects themselves and as rated by a psychiatrist on the basis of extended interview with the subjects. The correlations were consistent in indicating a positive correlation between the achievement measure and general severity of upbringing. McClelland *et al.* interpret this finding as showing that high achievement tendency is favored by strong parental stress on independent achievement (although they point out that the measures of parent behavior were not ideal ones for the test of this interpretation). On this interpretation, these results are consistent with those obtained in the cross-cultural study by McClelland and Friedman (1952), which has already been described above, and with the experimental finding that approval of strivings is important in their development.

The research just cited measures socialization variables only through the statements of the subjects themselves as adults or adolescents. More direct evidence about socialization variables is used in a study by Winterbottom (1953), which proceeds from the theoretical basis provided by McClelland *et al.* Winterbottom likewise uses as a dependent variable the frequency of achievement-related ideas in stories told by her subjects, who were 29 boys aged 8 to 10 years. Winterbottom derived from principles of learning a number of specific hypotheses about variations in socialization which should influence the strength of achievement motive. She then planned a questionnaire, to be filled out by the mothers of her subjects, designed to measure these socialization variables.

Winterbottom's findings may be summarized as follows

1. Demands for independent accomplishment, reported by the mother as goals in her training of the child: (a) No significant relation of the achievement measure to total number of such demands (perhaps because there is little variation in this total number). (b) Highly significant finding that mothers of high-achievement children make such demands at earlier ages than do mothers of low-achievement children.

2. Rewards for fulfillment of these demands for independent accomplishment: For three separate measures of frequency or intensity of such rewards, significant positive relation to the achievement measure.

3. Restrictions on independent activity, reported by the mother as goals in her training of the child: (a) Significant negative relation of the achievement measure to the total number of such restrictions. (b) Contrary to prediction, high-achievement children had been subject to more restrictions at early ages than had low-achievement children; however, it was still

true that at early ages restrictions were fewer than demands for the high-achievement children, while this was not true for the low-achievement children.

4. Rewards for acceptance of these restrictions on independent activity· Evidence, some of it significant, that high-achievement children have been more frequently and intensely rewarded for acceptance of restrictions than have low-achievement children; this tentative finding is directly contrary to what was predicted.

5. Punishments for failure to fulfill demands, or to accept restrictions: No significant findings (perhaps largely because of the lack of much variation on most of the punishment scales).

Thus Winterbottom's theoretical analysis has led to important findings about the influence of socialization variables on achievement-oriented behavior. Several of her predictions were very clearly confirmed; those which were contradicted were so clearly formulated and tested that the findings readily pose problems for future research.

The research of both Winterbottom and McClelland *et al.* uses as the consequent variable a measure of achievement behavior based on fantasy or imaginative productions. Winterbottom did obtain measures of more overt achievement-oriented behavior, and she reports that they are, in general, positively correlated with the measure based on fantasy. Sanford *et al.* (1943), on the other hand, obtained a negative correlation between overt and fantasy measures of achievement tendency. It seems reasonable to think of achievement themes in fantasy as parallel to aggressive themes in fantasy, in that both are responses evoked in a novel situation very different from that in which the response tendencies were learned. In this event, conflict theory, which has been so usefully applied to the analysis of aggression, might be highly pertinent here too, even though anticipations of punishment must be much weaker here than in the case of aggression. Conflict theory would suggest that there might be important differences between overt achievement strivings and fantasies about achievement, in their relations to socialization variables. Some of the discrepancies between Winterbottom's predictions and findings suggest the possibility that a conflict analysis would be useful as a guide to further research. It is also possible that such aspects of parental behavior as Winterbottom deals with have implications for the success or failure of the child's achievement strivings, apart from parental approval. For example, restrictions on the child's independent activity may imply that the child is often prevented from independent action until he is able to devise some ingenious scheme for eluding parental supervision, whereas the unrestricted child attains his goal at the outset without preliminary failure. If this is true, then experimental findings would suggest that the restricted child might develop especially strong achievement tendencies.

OTHER SYSTEMS OF BEHAVIOR

The six systems of behavior which have already been considered are those that have thus far received the greatest attention in studies of socialization This appears to be largely a matter of historical accident, for there are other systems of behavior that from any point of view seem equally worthy of study. Briefer notes will be added on several of these other systems of behavior, largely to indicate the depth of present ignorance about the role of socialization in influencing a great variety of significant human behavior.

Affection or affiliation. Terman's (1938) measure of marital happiness may be seen as in part an index of the extent to which the individual is motivated to affiliate with another person in an intimate relation, and is skilled in the behavior suitable for maintenance of affection in such a relation. To the extent that the measure has this meaning, his findings carry important suggestions about the probable influences of socialization variables on such affiliative behavior. They suggest, for example, that a parent-child relationship which produces strong positive ties is an important influence on the general and life-long affiliative behavior of the child. Confirmation of the probable generality of this finding is provided by Sanford *et al.* (1943). They deal with affiliative tendencies in school children, as expressed primarily in relation to agemates, and find that these tendencies are positively correlated with the strength of affiliative and nurturant behavior of their parents toward them, and negatively correlated with parental rejection, capricious discipline, and lack of family support.

Reproductive behavior. Motivation to have children is a variable of great practical importance in a society where effective contraceptive techniques are widely used. What factors influence the strength of this motivation? Variables of socialization seem bound to have an important influence — both socialization of reproductive behavior itself and other aspects of socialization which have an indirect influ-

ence. Direct socialization of reproductive behavior may have a special interest in that it probably occurs in great part during adulthood. One psychological study of reproductive behavior, which has some data bearing on socialization, is that of Flanagan (1942), which is concerned with variables influencing intended number of offspring, and ideals about number of offspring, among peacetime Air Corps officers.

Fear Fears or anxieties clearly tied to other systems of behavior have already been considered as a product of socialization variables. It is possible that fears elicited by specific external objects or situations, insofar as they are not genetically determined, are largely symptomatic of anxieties which are always tied to particular systems of behavior. But it may also be that they are in some instances an outcome of more specific socialization, the conventional fear of mice by females in our society, for example, may get its start in each individual primarily through specific training, even if its persistence through the generations suggests some underlying symbolic value Evidence in this direction is provided in a study by Hagman (1932); on interviewing mothers about their own fears and the fears of their children, he found a positive correlation between the two, both for total number of fears and for specific objects of fear. More certainly of interest in relation to socialization variables is the development of control of fear. Learning theorists, clinicians, and military men have been much concerned with how either unlearning or control of fear may be achieved in experimental, therapeutic, or mass training situations, but there seems to have been as yet no systematic research on the variables (among them, variables of socialization) operating in our society to effect differences in the general control of fear with which persons reach adulthood. Shirley and Poyntz (1941) have noted that sex differences and developmental sequences in childhood bravery suggest an important, and as yet unstudied, role of socialization.

General Variables in Socialization

AGE AT SOCIALIZATION

Since socialization is a continuous process which is going on at all stages of development, it may seem odd at first to speak of age at socialization as a variable. Yet it is clear that any specific socialization pressure may vary in the age at which it is imposed Also, the average age at which socialization pressures in general are applied may vary greatly from one family to another, or from one society to another. Either specific or average age of socialization may be significant as an antecedent variable in two ways which may be distinguished. First, there may be a simple relationship between age and some dependent variable; e.g., early socialization might have stronger effects than later socialization Second, there may be a more complex effect of age, not to be expressed in a simple quantitative statement; e g., socialization may have especially strong effects at several critical periods, or may have qualitatively different kinds of effects at various periods.

For observers reared in our quantitative culture age appears to be a very obvious variable in socialization, so that it appears as a descriptive variable in clinical case studies with almost monotonous regularity. It appears much less frequently in descriptions of socialization customs in primitive societies — in large part, no doubt, because in many societies people do not attend to calendar age and the ethnographer could reach an inference only by indirect means. Normative data about the age at which various socialization pressures are exerted have been published for various groups within our society (e.g., Anderson, 1936; Davis and Havighurst, 1946; Ericson, 1946, Klatskin, 1952b). In addition, there are a great many normative studies of the age at which various effects of socialization are achieved — for example, the age at which the child feeds himself, or the age at which bladder or bowel control is established. While variations in the age at which socialization pressures are exerted are certainly by no means the only source of individual differences in such measures, useful inferences about norms and variations in socialization ages may be drawn from such data in the absence of more direct information. Studies which provide such data are numerous; Anderson (1936) and one of several books by Gesell and his associates (Gesell and Thompson, 1938) may be cited as examples.

Structural information about age as a variable in socialization is very sparse. One problem of interest here is the relation between earliness of socialization with respect to one system or response, and earliness of socialization with respect to other systems or responses. In their cross-cultural study of socialization customs, Whiting and Child (1953) found a little

more evidence of consistency from one system to another for age of socialization than for their other variables, but evidence that there is any general consistency is not convincing. There seem to be no parallel studies on individual differences in socialization age within any single society Two items of evidence, however, suggest that there may be no marked consistency within our society. One is the fact that Davis and Havighurst (1946) found that differences between Negroes and whites in age of weaning were in reverse direction from the corresponding differences in age of toilet training. The other is the fact that neither Wittenborn (1954) nor Sewell and Mussen (unpublished manuscript), using cluster or factor analyses of a number of socialization items which included items about age, emerged with an age cluster or factor.

A second structural problem of interest is the relation between age and other variables in socialization. Very little evidence is available here, either. Whiting and Child (1953) find in cross-cultural comparisons that age of socialization has a fairly consistent inverse relation to severity of socialization. Anderson (1936), in a survey of child care in our society, presents several relationships between techniques and agents of socialization and age; for example, he reports that exclusive punishment by the mother tends to decline throughout childhood for boys, but that the corresponding decline for girls stops after the second year. There is some evidence, not perfectly consistent, that age at weaning from the breast is related to general maternal attitudes (cf. Orlansky's review, 1949, pp. 6-7), but no comparable information about age of imposition of other demands.

Age at which various socialization pressures are applied has been little studied as a consequent variable. The structural relationships which have just been mentioned may, of course, be interpreted in such a way as to make age the consequent variable. Otherwise, present knowledge goes no further than the demonstration that the age at which parents make particular demands on their children is in part dependent on the culture of their society (Whiting and Child, 1953) and of their subgroup within the society (Davis and Havighurst, 1946; Ericson, 1946; Klatskin, 1952b), and evidence that these aspects of our culture can be very considerably modified by pediatric advice (Klatskin, 1952b).

From several sources come suggestions that age at socialization may be an important antecedent variable. The most conspicuous source, perhaps, is the psychoanalytic theory of psychosexual development. The view that young children go through relatively uniform stages, in which their strivings are especially focused first on one kind of bodily pleasure and then another, suggests that the effects of a given socialization pressure should vary radically according to the stage of psychosexual development at which it is applied. Psychoanalytic accounts of the progressive development of the ego and the superego lead to similar suggestions. Many specific ideas of this sort could be drawn out of psychoanalytic theory of personality development (as summarized, e g., by Fenichel, 1945, or by Blum, 1953), and they appear to have had a wide influence on general thought about the importance of the age at which socialization pressures are applied.

A second source of influence here is the empirical work of child psychologists interested in plotting developmental sequences in human behavior through childhood. Insofar as this work leads to the conclusion that the typical child is at various ages characterized by different ability levels, different specific skills, different motivational hierarchies, and the like, it suggests that a given socialization pressure may have very different effects according to the age at which it is applied. If its immediate effect varies greatly according to age, it is reasonable to guess that its lasting effects on the habit structure would also vary. The plotting of developmental sequences has, in general, been done by psychologists who were little interested in the study of socialization. A notable example of how these potentialities might be realized is provided by the recent article by Stendler (1952) on critical periods in socialization with respect to the origins of overdependency.

A third source of influence comes from learning theory. Various psychologists have argued from general principles of learning that the learning which takes place early in life should have especially great influence on lasting personality characteristics. The argument is based partly on the principle of primacy; tendencies first acquired can shape later learning, and are themselves likely to be continued unless conditions are just right for unlearning them. But the argument is also based on combining principles of learning with knowledge or suppositions about the distinctive conditions surrounding learning in infancy and early childhood. Thus the first learning is preverbal, and for this reason may be expected to be more broadly generalized and less susceptible to later extinction or verbally mediated control. Because of the infant's limited capacity to move around, handle objects, and communicate with

people, he is likely to be very inconsistently rewarded, knowledge of the effects of irregular reinforcement suggests that what is learned under such conditions should be especially difficult to extinguish. This same helplessness of the infant may well mean that he is often subject to greater drive intensity than commonly occurs later in life If this assumption is correct, it should have two implications. First, drive reduction when it occurs is likely to be especially great and produce especially strong learning. Second, the occurrence of extreme drive states should set the stage for the learning of intense acquired drives, or what might be called emotional learning, and this sort of learning is of special importance for the formation of those internal characteristics that are of central concern in the study of personality. Finally, the situation of the child in intimate dependence upon parents and siblings may in some respects be more similar to the situations he will encounter in adulthood as spouse and parent than is the great bulk of his experience in the years between. To the extent that this supposition is correct, it gives grounds for supposing that habits acquired in the almost exclusively familial situation of early childhood will have an especially important controlling influence over the person's later behavior as spouse and parent. Some of these and other arguments will be found more fully stated by Dollard and Miller (1950, pp. 127-156) and by McClelland (1951, pp. 341-346).

A final source of influence here comes from experimental studies of lower animals, which have been directed at testing the lasting effect of some early training which might be compared with human socialization. The possibility of making any sound inferences about human socialization from such studies seems at present sufficiently remote so that they will not be discussed here. References to such studies will be found in a more general review by Beach and Jaynes (1954) on the effects of early experience upon the behavior of animals.

With the exception of the animal experimentation, no one of these sources of influence has associated with it a body of systematic research. This is a variable concerning which academic psychologists as well as psychoanalysts have been motivated to speculate far beyond verified fact.

Orlansky, in a review article (1949), has addressed himself to the evaluation of evidence on the importance of socialization during infancy, which he apparently defines as the first year or year and a half after birth. He sets up for attack an exaggerated position of attributing to events in infancy an almost exclusive role in the formation of personality, and by implication seems to identify this position with that of psychoanalysis in general. He then attacks this extreme position on two grounds. One attack (the less emphasized of the two) consists of arguing that experience after infancy is of vital importance in the formation of personality. The evidence which he uses to support this argument is of the same character as the evidence which he vigorously criticizes others for attending to — interpretative statements about single cases, and sweeping generalizations which are inadequately documented. The evidence he offers is persuasive of little more than the strength of his feelings, however much one may agree with his thesis. Orlansky's other and more important line of attack consists of a critical evaluation of evidence about the effects of infant care on personality. Here he correctly shows the paucity and inconclusiveness of systematic evidence that would support the view that variables of infant care have great and lasting influence on personality. His review of the relevant research is extremely useful if his bias is kept in mind, and subsequent research published up to now would not very greatly modify his finding. The inference to be drawn from this state of affairs is, of course, a matter of individual judgment. Orlansky seems inclined at many points to draw a definite negative conclusion about the significance of various variables of infant care as influences on personality. The present writer is more inclined to consider quite open the possibility that the negative findings reflect mostly a failure to ask just the right questions and to test them in appropriate ways. Each person who pursues this problem must make his own guesses

A specific type of study considered by Orlansky and also considered earlier in this chapter, of relevance here, correlates age of weaning or toilet training with indices of later behavior. These studies provide negative evidence for certain specific hypotheses which might be suggested under the influence of the lines of thought that have just been reviewed. It must be said, however, that they have no very conclusive bearing on these lines of thought in general form. Perhaps the most cogent reason behind this argument is the following: These studies have thus far dealt with a range of variation in age which is very small (since weaning and toilet training are rarely long delayed in our society), whereas most of the reasons which have been advanced speculatively for supposing age to be an important variable are applicable to variation over a much longer period. It may be significant that two recent studies which, in

different contexts, deal with age as a variable and reach positive findings are concerned with variation through a longer period.

One of these studies is that of Winterbottom (1953) on socialization variables as a determinant of achievement orientation in fantasy. One of the variables was the age at which the mother initiated various demands for independent behavior and various restrictions on independent behavior. In both instances, high achievement orientation was found to be associated with early initiation of the pressure (at the age of 7 or before). These findings suggest the general importance of early socialization in the development of acquired drives.

The other recent source of evidence is in Whiting and Child's (1953) cross-cultural test of hypotheses about the origins of guilt. They find a considerable consistency in correlations between a cultural index of guilt feelings and age of initiation of various aspects of socialization, high guilt being associated with relatively early socialization. Here, too, the age range was throughout childhood rather than within infancy. These findings, like Winterbottom's, suggest a special role of early socialization in the development of acquired drives, although Whiting and Child also offer a more specific interpretation. Their interpretation relates the effect of socialization to the degree of emotional dependence of child upon parent at the time of socialization, and has much in common with Stendler's discussion (1952) of variations with age in the effects of socialization on dependence.

These recent studies, each dealing with some specific correlate of age of socialization, do not justify broad generalizations at present. They do offer some support, in systematically gathered evidence, for the clinically or theoretically derived notions of the importance of age of socialization as an independent variable. The significance of this support as yet amounts to little more than an encouragement of further exploration. In this further exploration it is to be hoped that something may be learned not only about the gross significance of age as a quantitative variable, but also about the significance of the developmental status which is roughly associated with particular ages. Only in Stendler's work is there the beginning of this approach, and the suggestions which may be derived from psychoanalytic theory have not yet been touched in systematic empirical studies.

CONTINUITY-DISCONTINUITY

The variable of continuity vs. discontinuity in the temporal sequence of expected behavior was first treated explicitly as an important variable by Ruth Benedict (1938). She deals with this variable in relation to a comparison between the role of the child and the role of the adult. In our culture there is a marked difference between these two roles, and we may be inclined to ascribe it simply to the biologically determined differences between child and adult She points out that there are important aspects of behavior for which our culture does not show this temporal discontinuity, but rather expects the child to share the behavior of the adult. She then shows that there are cultures which show continuity in some of those aspects of behavior for which our culture shows the greatest discontinuity. In short, there is clearly a cultural variable here, moreover, while Benedict is concerned with demonstrating that there is a cultural variable, her argument (with appropriate substitution of examples) can be equally well applied to demonstrate that this is also a variable on which the child-training practices of individual parents within our society can be compared and found to show great variation.

Benedict is concerned with this variable not just because of its descriptive and normative value, but because she sees it as an important antecedent variable. The consequences that she deals with have to do with degree of adjustment, but her hypotheses about the consequences have more immediate theoretical meaning than most hypotheses of this sort, for they have a direct connection with basic psychological theory. Benedict does not use psychological terminology in her statement, although she seems clearly to be influenced by psychiatric thought. Her principal hypothesis might be phrased as follows: To the degree that socialization is discontinuous, it will develop in the individual psychological conflict which would not otherwise be present.

It should be possible to measure the extent to which the over-all socialization practices of an individual parent or of a society approach an extreme of continuity or an extreme of discontinuity, and to test whether this measure is, in fact, correlated with various indices of conflict or adjustment. This has apparently not been done. Benedict's hypothesis seems so plausible in the light of general psychological knowledge, however, that it has been widely accepted even in the absence of any more systematic evidence than is provided by cultural examples such as she gives. There is, of course, a special difficulty in doing systematic research on this variable. It is not possible for socialization to vary much in degree of continuity with-

out a great variation in the specific character of the responses that are being taught; for example, with a high degree of sexual freedom in adulthood, continuity means sexual freedom in childhood while discontinuity means sexual inhibition in childhood. Perhaps this difficulty has tended to restrain systematic research on this variable.

Whatever the reason, there seems to have been as yet no systematic research on continuity-discontinuity. There appear to have been no adequate normative studies which would permit any precise comparison of individuals or of societies on this variable, no studies of its structural relations to other variables in socialization, and no studies of continuity-discontinuity as either a dependent or an independent variable. From certain specific studies of socialization, of course, information could be drawn which would be relevant to such a pursuit, but it has not been gathered together.

Benedict's concept and hypothesis have nonetheless had a very considerable influence on thought about socialization. One example may be provided by a use of continuity as a hypothetical variable in Rabban's (1950) study of sex-role identification in young children as a function of social class. He compares children of an upper-lower and an upper-middle class group in the extent to which they have at various ages incorporated cultural standards of sex typing of adult behavior. He finds that middle-class children tend to develop sex-typed behavior at a later age than do the lower-class children. He then interprets this finding as a probable outcome of differences in the continuity of training in sex typing as between the two class groups. The assumption that discontinuity makes for conflict appears in his suggestions about the relation of his findings to psychoanalytic views about the sexual sources of adult neurosis.

Benedict's views have even had a considerable influence in research in which continuity-discontinuity is not deliberately introduced as a variable at all. An example may be found in the way in which this concept guided the cross-cultural work of Whiting and Child (1953). These authors were, in effect, interested in the way that conflicts produced in socialization might influence later personality Benedict's article helped direct their attention toward points of discontinuity in socialization. They dealt, however, not with discontinuities between the role of child and adult, but rather with discontinuities between the role of infant and child, or of younger child and older child. They chose five systems of behavior for which there seemed to be some reason to expect such discontinuities. It may be significant that two of the three systems of behavior for which their predictions about lasting effects of socialization received most marked confirmation (oral and dependent behavior) are ones in which there is usually a great discontinuity. For toilet training, however, which is probably next to these two in general degree of discontinuity between infancy and childhood, they found almost no confirmation of their predictions. That discontinuities are not the only source of conflict may be illustrated, if illustration is needed, by the fact that there was very substantial evidence of conflict about aggression, even though discontinuities in aggression training were not often apparent

Another aspect of Benedict's discussion of this variable which has received much less attention so far has to do with the techniques of training used at points of discontinuity, as an important influence on the severity of conflict produced. Research on certain specific problems, such as the gradualness of weaning, is relevant, but the more general problem has not been systematically studied.

CONSISTENCY OF SOCIALIZATION

Discontinuity in socialization means that the pressures exerted upon the child at one period are inconsistent with the pressures exerted upon him at another period of his life. But inconsistent pressures can also be exerted upon the child within any single period, and the effect would again be expected to be the learning of incompatible response tendencies and hence the development of psychological conflict. Another antecedent variable of socialization which seems likely to be of great importance, then, is degree of consistency.

This variable appears very frequently in descriptive accounts of socialization, and clinical case reports often make use of the assumption that inconsistency leads to conflict. This variable also appears in the scheme for describing parental behavior developed by Baldwin, Kalhorn, and Breese (1945, 1949). Yet there seems to have been no systematic research directed at verifying the relationship between parental consistency and psychological conflict. To be sure, this variable plays a plausible role in the interpretation of many relationships found between general variables of parent behavior and resultant personality characteristics in the child, but it has not been effectively isolated as a variable for direct study. In the absence of such direct evidence, an experiment by Meyers

(1944) on momentary psychodynamics is of interest here, it shows clearly that incompatible commands addressed to the child in a single situation produce marked signs of conflict

Consistency may, of course, be a more significant variable for each system of behavior separately than it is for parental behavior as a whole. Many of the findings which have been reviewed earlier in this chapter might be tentatively interpreted in terms of a relation between inconsistency and conflict, but here too, consistency has not actually been isolated as yet for separate study. It should be noted that when consistency is isolated, it may be desirable to consider not just parental consistency but the consistency of the child's whole environment Thus if the parents consistently punish aggression but the playmates consistently reward it, conflict may be set up as effectively as if the parents themselves were inconsistent. The extent to which the child develops separate habits in response to different people and situations, so that seemingly incompatible tendencies do not come into conflict with each other, is a question which can be settled only by empirical study. There seems to be much greater opportunity for studying this problem in relation to specific systems of behavior than in a completely general setting.

Consistency may be an important antecedent variable for additional reasons, too Whiting has suggested (cf. Sears *et al.*, 1953) that conflicting anticipations may be the basic nature of acquired drives Should this be correct, then consistency is the most important variable of all in socialization for the development of acquired drives, since inconsistency of socialization is undoubtedly a major source of conflicting anticipations The testing of this notion in the naturalistic setting of human development would, of course, require empirical isolation of consistency as a variable. Here again, however, it is consistency with respect to particular systems of behavior which needs to be studied, and the consistency of the environment as a whole rather than just of the parents may need to be considered.

A further reason for considering consistency to be an important variable comes out of experimental studies of learning. Training which involves reinforcement on some occasions and lack of reinforcement on other occasions produces learning which is more resistant to extinction than does training in which reinforcement is perfectly consistent. As McClelland (1951) has stressed, this generalization leads one to expect that the effects of inconsistent patterns of socialization will be particularly enduring in the face of changed life conditions But obviously a crucial question here, as in other considerations about this variable, is whether there is genuine inconsistency from the point of view of the child, or whether the various situations in which he is treated differently are in fact well discriminated by him at the time

These theoretical considerations argue so strongly for the importance of consistency as an antecedent variable that it is one of the variables most urgently needing specific attention in future research.

TECHNIQUES OF SOCIALIZATION

Parents in our society, when confronted by behavior problems in their children, tend to ask, "How shall I cope with this?" Techniques of socialization are hence a variable of which parents are most keenly aware, as may be illustrated by such folk beliefs as, "Spare the rod and spoil the child." The same emphasis has carried over into the thought of educators and psychologists, reinforced by the obvious consideration that if socialization is a matter of leading the child to learn something, just what he learns is going to depend very significantly upon the exact circumstances of training. Thus Watson (1928) in his early and rash attempts to apply behavioristic thought to the formulation of practical advice about child rearing, was largely concerned with techniques of socialization. Similarly, Whiting and Mowrer (1943) in using animal experimentation to study phenomena which might parallel human socialization, chose technique of training as their major experimental variable. Clinical case studies also show a good deal of attention to technique of socialization as an important influence, for example, on the traumatic quality of childhood events.

With this background of wide awareness of techniques of socialization as variables, it is surprising that so little attention has been given to them in systematic research. Techniques appear as a descriptive variable, to be sure, in many accounts of socialization. But systematic collection of normative data appears to be very rare. One instance is provided by Anderson's (1936) survey of child care in the U.S., where one chapter is devoted to techniques of discipline; variations of technique with age, sex, and social status are also reported. Some structural information about interrelationships among specific variations in technique (and between these and other specific variables in socialization) appears in a recent study by Wittenborn (1954). For example, mothers' reports

of use of three techniques of punishment for aggression toward parents (spanking, reprimand, and deprivation of privilege) are found to be consistently positively correlated with each other.

Systematic studies of techniques as an antecedent variable have been few; yet these few studies have fairly consistently yielded positive results Several distinct kinds of variation in techniques of socialization will be considered separately.

Technique of reward. There seems thus far to have been only one study of technique of reward as an antecedent variable, provided by a part of Winterbottom's research (1953). Although providing evidence only about socialization in one system of behavior, that of achievement, it has potentially a much more general significance. Winterbottom was interested in type of reward as possibly providing a scale of affective intensity of reward for the child. In a questionnaire for mothers she asked about techniques of reward used both for the child's fulfillment of demands for independent behavior, and for the child's acceptance of restrictions on independent behavior In the questionnaire, three types of reward were described along with three relatively neutral responses to the child's behavior, and the mother was asked to indicate which three of the six responses were most typical of her. The rewards, arranged in descending order of assumed affective intensity, were (1) kiss or hug him to show how pleased you are; (2) tell him what a good boy he is, praise him for being good, (3) give him a special treat or privilege. As a reward for fulfillment of demands for independence, the last of these three types did not differentiate between subjects with high and low achievement tendency. The second reward could not usefully be analyzed, because it was reported by all but one mother. The first reward, physical demonstration of affection, was found to be associated with high achievement tendency in the child, as predicted by Winterbottom. With respect to rewards for the child's acceptance of restrictions on independent behavior, the findings were essentially the same. In this case, the positive relation of physical affection reward with achievement tendency was contrary to Winterbottom's theoretical prediction. The consistency at a superficial level, however, of findings on type of reward in the two different situations does suggest that Winterbottom's questionnaire is getting at some general variable in type of reward which is significant for its effects on the child's personality.

Techniques of punishment. Studies of type of punishment as an antecedent variable are somewhat more numerous First, it should be mentioned that Winterbottom also dealt with type of punishment, with negative results. Her questionnaire asked about three types of punishment (scolding or spanking, expression of disappointment, and deprivation of treat or privilege) for which she tentatively assumed a decreasing order of affective intensity. The outcome was that there was no evidence of a relationship to the consequent variable of achievement tendency. Unfortunately, however, two of the three punishment techniques were reported by almost all the mothers, so the test was not very adequate. For both rewards and punishments, of course, Winterbottom's scale of affective intensity may be questioned, and direct concern with technique of socialization as an antecedent variable might well lead to different categories and scales.

Three groups of studies, all apparently done quite independently of each other, have been concerned with some kind of variation in technique of punishment which might be related to strength of conscience or superego. As they were done out of context with each other, the antecedent variable has been differently defined in each case; the substantial agreement in outcome is perhaps all the more striking in light of this fact.

First of all, there is a single study by MacKinnon (1938) of individual differences among male college students. The student was set to work at solving problems, in the presence of a booklet which contained the solutions; he was allowed to look up the solution of certain problems, but not of others. The student thought he was alone, but a concealed observer was actually watching and observed that about half the subjects violated the prohibition against looking up answers. Other evidence about the subjects showed clearly that the nonviolators were characterized by much stronger actual and potential guilt feelings than were the violators. At a later time, the subjects were asked about the type of punishment generally used by their mothers and fathers. One type, physical punishment, meant "measures by means of which a child is actively and physically punished or frustrated"; the other, psychological punishment, meant "measures which seek to have a child feel that he has fallen short of some ideal or that he has hurt his parents and consequently is less loved by them because of what he has done" (p. 498). Violators were found to report psychological punishment from their fathers less frequently than nonviolators. Very few subjects were available for this part of MacKin-

non's study, so that while the difference is large it is not statistically significant.

A second group of studies has grown out of the cross-cultural work of Whiting and Child (1953). A portion of their work is concerned with factors influencing the strength or generality of guilt feelings, which might be a reflection of general strength of conscience or superego. Whiting and Child distinguish between love-oriented punishments (considered likely to keep the child oriented toward the goal of parental affection while arousing uncertainty about the attainment of this goal) and nonlove-oriented punishments (considered likely to set up an avoidance of the parents by the child). This distinction corresponds, for the most part though not perfectly, to the one made by MacKinnon. Working with rather inadequate indices of the relative use of these two categories of punishment, Whiting and Child obtained some evidence of a positive relationship between the relative importance of love-oriented punishment and the strength of guilt feelings.

This finding led Whiting and several of his associates to test this relationship on individual differences in three culturally distinct communities, of which two have thus far been reported on. In these studies children's personality was studied through projective techniques; degree of generalization of guilt was measured by the extent to which guilt feelings expressed in a lifelike projective test (about children) were duplicated in a less realistic projective test (with dog characters). Mothers were interviewed about their child-training practices. Hollenberg (1953), for individual differences within a Pueblo Indian group, and Faigin (1953), for individual differences within a rural white community, strikingly confirmed the relationship between generalization of guilt feelings and relative predominance of love-oriented techniques of punishment.

A third source of somewhat similar information is to be found in Glueck and Glueck's (1950) study of delinquents and of matched nondelinquents. The relevance of the findings here is dependent upon the assumption that delinquents differ on the average from nondelinquents of similar social origin in the strength of the conscience or superego. Glueck and Glueck present evidence for this assumption, based on Rorschach records. Since this evidence depends upon aspects of Rorschach interpretation which have not been satisfactorily validated, and may even grow out of irrelevant clues in the Rorschach protocols, the assumption may also be justified for present purposes by the fact that it seems on common-sense grounds to be a likely one. If the assumption be tentatively granted, then contrasts between delinquents and nondelinquents may be relevant to strength of conscience as a consequent variable. Among the antecedent variables dealt with by Glueck and Glueck is presence or absence of each of five methods of disciplinary control, which represent for the most part techniques of punishment, as reported separately for mother and father in an interview with one or both parents One of the five, physical punishment, clearly falls at the extreme of nonlove-oriented punishments (in Whiting and Child's terminology); here there is a large and highly significant difference between the parents of delinquents and nondelinquents, the former reporting the use of physical punishment much more often. There are two types of punishment which are likely to be toward the other extreme of love-oriented techniques (though not clearly so). For one of these, reasoning, there is a highly significant difference in the opposite direction, with parents of nondelinquents reporting it much more often For the other, appeal to pride, there is no large or consistent difference. For two other techniques which are ambiguous with respect to love orientation (deprivation of privileges and threatening or scolding) there are no results consistent for both mother and father. As far as these results may be considered relevant, then, they do tend to confirm the findings of other studies which indicate that technique of punishment is an important variable influencing the development of conscience.

The interpretation of this general finding is not as clear as the finding itself seems to be. Whiting and Child propose an interpretation originating in psychoanalytic theory but phrased in terms of learning theory, by which the relevance of technique of punishment is through its effect on the child's identification with his parents. Some doubt is cast on this interpretation by two items of evidence First, the community studies by Faigin and Hollenberg included empirical measures of identification, and these measures did not consistently show the relationships that would be predicted from Whiting and Child's interpretation. [On the other hand, a somewhat comparable study of individual differences within our society by Levin (1952) does show a negative relation between physical punishment and identification, as would be suggested by Whiting and Child's interpretation] Second, this interpretation as applied to delinquency would suggest that delinquents should show much less identification

with parents than should nondelinquents. Evidence on this point is ambiguous, Zucker (1943) finds such a difference, while Cass (1952b) does not. Finally, the correlation between techniques of punishment and indices of superego strength may be due to a common effect, on these two variables, of earlier socialization. Early establishment of a strong positive relationship between parent and child, for example, may lead directly to a strong superego and also permit reliance upon techniques of punishment which are effective only in the presence of a strong positive relationship.

Balance of reward and punishment Another variable in technique of socialization is the relative use of reward vs. punishment as a training method. Whiting and Mowrer (1943) have discussed this variable in relation to discontinuities in socialization. At any point of discontinuity, the child is expected to unlearn an old response and substitute a new response. The new response, when it is made, is presumably going to be rewarded. But the elimination of the old response may be achieved either by rewarding it less than the new one (or not at all), or else by actively punishing the child when he makes it. (Whiting and Mowrer also discuss the effects of nonreward of the old response in comparison with physically preventing the occurrence of the old response, a technique which is applicable only to certain limited classes of response.) If punishment is understood, in a general sense, as the imposition of any unpleasant consequences (other than nonreward) for an act, it is doubtful whether punishment can be altogether eliminated in connection with any aspect of human socialization. But there is no doubt that the relative use of punishment and of differential reward can vary markedly. Moreover, this variable can be applied to other aspects of socialization than those that show a clear-cut discontinuity. Where socialization is directed at establishing responses to situations to which the child has previously just not been responding, there can also be variation in the degree of reliance upon reward for correct responses or upon punishment for failure to respond.

Whiting and Mowrer were concerned with the effects of these techniques of socialization on ease of training and on the rigidity with which the effects of training would be maintained under changed conditions. The suggestions they made were tested in an experiment with rats, intended to represent an analogue to human socialization, and appear never to have been tested in systematic research with human beings. Theoretical analysis also suggests other consequences of the relative balance between reward and punishment in socialization, and for some of these other consequences there has been research which has a promise of relevance.

The research which seems most relevant is that which has employed severity of socialization as an antecedent variable. The way in which severity of socialization has been measured suggests that this is in considerable part a measure of the extent to which socialization is achieved by punishment rather than by differential reward. Thus the aims of toilet training, for example, are fairly uniform in our society. A mother is likely to be judged severe in toilet training if she achieves these aims by intense punishment, and mild if she achieves them primarily by rewarding the child for conformity and simply not rewarding his failures to conform. The judgment of severity is likely to be influenced by other considerations, too, and hence the variable of punishment vs. reward has not been genuinely isolated. But this variable is of such great potential importance that it seems useful to review some of the research on severity of socialization in order to indicate with some degree of probability what may be found when the variable of reward vs. punishment is actually isolated.

First of all, then, it might be expected that high dependence upon punishment rather than differential reward would lead to the acquisition of anxiety. A good deal of research which has been reviewed above in connection with specific systems of behavior tends to confirm this prediction. Severity of socialization in any system of behavior seems to be correlated with later evidence of anxiety associated with that system. In addition, there is some evidence that severe socialization in any system of behavior, or over-all severity of socialization, is positively related to indices of general anxiety that is not specific to any one system. Whiting and Child (1953) have two possible indices of this sort in their cross-cultural study — one a measure of generalized guilt and the other a measure of fear of others. Both these indices show a clear but slight tendency to correlate positively with all measures of severity of socialization. A third index, less certainly relevant to anxiety, is provided in a cross-cultural study of art styles by Barry (1952). He finds that measures of severity of socialization are positively correlated with complexity of art form, and he interprets this finding by assuming that complexity is a product of generalized anxiety resulting from severe socialization.

A second prediction is that a relative predominance of differential reward rather than

punishment, as a technique of socialization, should be favorable to imitation of the parent by the child. Miller and Dollard (1941, p. 277), in discussing the origins of speech, have suggested that the tendency for the child to imitate its parents is partly a function of the acquired reward value of the parents' behavior. "Since the mother talks to the child while administering primary rewards such as food, the sound of the human voice should acquire secondary reward value. Because the child's voice produces sounds similar to that of his mother's, some of this acquired reward value generalizes to it" This idea has been considerably generalized and elaborated by Mowrer (1950, pp. 573-616). Now it seems reasonable to assume that the acquired reward value of the parents' behavior will be diminished by frequent use of severe punishment. It would then follow, from Miller and Dollard's argument as generalized by Mowrer, that a relative predominance of punishment as a technique of socialization should make for reduced imitation of parent by child There appears to be just one finding thus far which is clearly relevant to this prediction. Levin (1952) reports a study where the consequent variable is the extent to which, in standardized doll play, the child makes a mother or father doll, rather than a child doll, the agent of action. A reasonable tentative assumption is that this variable will reflect the general tendency to imitate the parent. Levin reports very consistent negative relationships between this variable and various measures of severity of socialization. Here is strong confirmation of the prediction, but it would obviously be desirable to test it also with a direct measure of imitation of the parent in everyday life as the consequent variable.

This prediction may also be pertinent to another research finding which is otherwise difficult to interpret. Holway (1949) has studied as a consequent variable the extent to which, in standardized doll play, the child's play is realistic (in the sense that dolls and objects are used in ways appropriate to the behavior or function of the corresponding person or thing in real life). She finds high positive correlations between this variable and measures of infantile indulgence and mildness of socialization. Perhaps this is because a high acquired reward value of the parents' behavior favors the taking on of the generally realistic behavior of adults. If the interpretation offered here for the Levin and the Holway studies turns out to be correct, important questions still remain about what other variables influence the acquired reward value of the parents' behavior, and about whether the correlations observed in these studies of preschool children would also be found at other ages or whether the balance of reward and punishment operates in this way primarily at early ages. Theories of identification outlined by Mowrer (1950) and by Whiting and Child (1953) would suggest that at least the indirect effects of the parents' acquired reward value may vary greatly according to the age at which various socialization pressures begin to be exerted.

Type of control Another variable which may be considered under techniques of socialization is the general type of social relationship through which parents exert control over their children. Radke (1946) and Baldwin (1948, 1949) have dealt with a contrast between democratic and autocratic modes of control. Both authors report findings on the relation between this as an antecedent variable and the behavior of children in school or preschool The two sets of findings are in part consistent and in part appear to be contradictory. Each interpretation is very complex and seems to require a number of assumptions about a variety of implications for the child of the antecedent variable used In the opinion of the writer, this variable as it has been used is too complex for optimal efficiency at the present stage of our knowledge. Findings such as those of Radke and Baldwin might well be drawn on for suggestions about more specific aspects of parental control whose specific consequences could be studied. Some of these more specific aspects may turn out to be the variables of techniques of socialization which have already been considered here Other aspects may turn out to involve particular systems of behavior; for example, a part of what has been called autocratic control may be a high degree of reward for continued dependence throughout childhood. There may remain, however, one or more variables of type of control which will have a fairly unitary meaning as antecedent variables.

STATUS OF THE SOCIALIZING AGENT

Freudian theory stresses the importance in personality development of the child's social relations with the other members of his family, and by implication suggests that the consequences of this interaction may be greatly influenced by the character of the other members as socializing agents. Behavior theory, likewise, in viewing personality development as importantly influenced by learning in a social relationship, would also suggest that exactly what is learned will depend upon the sort of

people who play the role of socializer to the child Some of the variation among different socializers is a matter of individual differences in personality or in socialization habits But some of it may be associated with status characteristics Thus the effects upon a child of socialization by an adult may differ from those of socialization by an older child. Interaction with the parent may have different effects from similar interaction with a nonrelative. The sex of the socializing agent might be expected to make a difference, and so on. It is such variations according to the status of the socializing agent that will be considered in this section.

A limited amount of descriptive and normative information is available about differences in socialization practices among various agents. Thus for our society Anderson (1936) and Radke (1946) provide data about the differing roles of mother and father in the socialization of the child. Anthropologists have shown that the role of various agents of socialization is radically different in some other societies In particular, many societies extend responsibility for socialization beyond the nuclear family to other relatives and neighbors to a greater extent than we do, and in some societies the special disciplinary role we assign to the father is to a considerable extent assumed by a maternal uncle (cf. Malinowski, 1927; Eggan, 1943).

As an antecedent or hypothetical variable, agent of socialization is, of course, not a simple, unidimensional variable. There are a number of variables involved which may be important. One of these is the sex of the socializing agent, which has appeared as a sort of hypothetical variable in several studies. Child (1946) tested for the occurrence of certain achievement-oriented behavior according to whether a man or a woman was present with the child. Both boys and girls showed the behavior more frequently in the presence of a woman, and this was interpreted as a result of the greater role of female socializers in training the child in achievement. The evidence was poor, however, as only one experimenter of each sex was used. Gewirtz (1951) has obtained somewhat more satisfactory evidence of a parallel nature on attention-seeking behavior, and Caron and Gewirtz (1951) on aggressive behavior. In both of these studies differences were found between boys and girls, but the sex of the adult interacting with the child was shown to be an important part of the stimulus situation, and a plausible interpretation may be made by reference to the hypothetical roles of male and female socializers. The interpretation will obviously not be very secure until differences among children in response to the two sexes are actually related to differences among them in their previous experiences with male and female socializers.

As an actual antecedent variable, the sex of the socializing agent has thus far been studied only in connection with the extreme case of absence of one parent. A generally more important role of the mother than the father, in our society, is perhaps suggested by Barry's finding (1939) that maternal bereavement during childhood is much more common in psychotics than in normal individuals, whereas paternal bereavement is not. The military service of many fathers in World War II provided an occasion for study of the immediate effects of father-absence on children, though of course there were no comparable data on mother-absence. Such studies are reported by Bach (1946), Sears, Pintler, and Sears (1946), and Pauline S. Sears (1951).

The status of the main socializer as an adult human being has also been employed as a sort of hypothetical variable, in analyses of displacement resulting from socialization. Sears *et al.* (1953) and Whiting and Child (1953) have assumed that conflicting behavior tendencies learned with respect to the main socializer will be generalized to other persons or objects according to their degree of similarity to the main socializer. The application of conflict theory, proceeding from this initial assumption, has led to encouraging results. These results then provide indirect evidence that the status of the main socializer is an important determinant of behavior toward other persons and objects.

Another variable pertaining to the status of the socializing agent is the intimacy of his relationship to the child. Whiting and Child (1953) suggest that close intimacy, such as that between parent and child, favors the development of identification, and that to the extent that less intimately related agents play an important part in socialization, identification may be reduced and a less strong conscience be developed. Whiting and Child cite several cross-cultural relationships which are all in the direction predicted from this hypothesis but are generally far from statistically significant.

From this brief review it will be seen that systematic research has not yet contributed very much to knowledge about the status of the socializing agent. Several variables of probable importance have been identified — sex, age, and adultness of the socializing agent, and the intimacy of his relation to the child. Evidence about the effects of these variables is very frag-

mentary, and in considerable part is based on indirect inference through their use as hypothetical variables.

MISCELLANEOUS DIMENSIONS OF BEHAVIOR IN THE SOCIALIZING AGENT

A number of studies have been concerned with various general dimensions of behavior in the socializing agent as antecedents influencing child behavior. Almost all of these studies have been concerned with the behavior of the parent, although some attention has also been paid to similar dimensions of behavior in teachers (cf. Anderson, Brewer, and Reed, 1946). Some of the antecedent variables that have been investigated, with illustrative references, are protectiveness (Levy, 1943), rejection (Symonds, 1939), domination (Symonds, 1939), warmth (Baldwin, 1949), and awareness of the child's characteristics (Cass, 1952a). Reviews and summaries of such studies have been published by Symonds (1939), Radke (1946), and Hurlock (1952).

These studies will not be reviewed here because their main findings appear to the writer to be somewhat outside the scope of the study of socialization. They are indeed relevant to the study of personality development, for it is clear that general variables of parent behavior such as these are very important as antecedents of child personality. They should eventually be highly relevant also to a study of the role of socialization variables in personality development For example, the general emotional attitude of parent toward child may be an important determinant of the way the child will respond to a particular socialization demand, or of the way he will respond to parental use of particular techniques in socialization. But such a relevance to the effects of socialization, however probable from the evidence of case studies, has not yet been demonstrated in systematic studies. It is probable that the combined study of general parental characteristics and specific features of socialization as joint antecedent variables will be one of the important directions taken by future research.

The Status of Systematic Research on Socialization

Systematic research on socialization, guided by the interpretative inferences of clinicians and ethnographers, has already succeeded in identifying a number of variables that appear to be of importance as influences on the later behavior of the individual who is socialized. A considerable body of tentative knowledge has been developed about these influences. It should be remembered that this has not been a highly critical review of that knowledge; every finding cited in this chapter is necessarily subject to some kind of explanation other than the one presented here, and the student who is planning research on any one of the variables will want to consider these alternative explanations in evaluating existing research and planning his own. In short, the existing body of research findings, while impressive as a whole, is not very solid in detail.

This status of knowledge about socialization is encouraging to the researcher who looks forward to the long prospect of increasing discovery and verification. But it is not very satisfactory for anyone who presses for immediate practical application. To the solution of the practical problems which may originally motivate this research, the knowledge obtained up to now makes very little immediate contribution. To be sure, anyone closely acquainted with this research is likely to be affected, in his role as parent, by insights derived from it; but he is not likely to be very happy about general advice based on so tentative a body of knowledge. This does, however, appear to be a kind of knowledge which, when further refined, better verified, and carefully placed in a context of information about parental problems and aims, might be of great practical value. Advice to parents based on clinical insights is, of course, being constantly offered. Advice based on soundly established generalizations must wait for much more systematic research on socialization.

In the prosecution of this research, many general problems will have to be faced which have thus far hardly been touched upon. What, for example, are the distinctive conditions for the modification of cognitive processes, of motivation, of acquired reward, of instrumental responses? While certain studies of socialization have been phrased in terms which suggest distinctive concern with one or another of these aspects of behavior, there has been practically no direct test of hypotheses which actually differentiate among them. Another general problem little dealt with so far is the interaction of socialization variables with each other, the differing effect of one variable according to the degree in which some other variable is present. Another problem is the permanence, and the indirect effects, of the personality consequences of socialization variables. Of the greatest im-

portance, too, is the possible variation in effect of any socialization variable according to the already established personality characteristics of the child The interaction of socialization variables with constitutional differences is one part of this problem. Quite apart from such general problems to be dealt with in the future, however, the fragmentary but promising state of almost every detail of our present knowledge about socialization is a challenge to the science of human behavior.

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CHAPTER 19

Psycholinguistics*

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A language is a system of arbitrary vocal signs that can be used to obtain cooperation and interaction among the members of a social group. Social process without communication is by definition impossible, and by all odds the most important medium for communication is language. In this chapter, therefore, we propose to examine a kind of human behavior that is of central significance for social psychology.

Many branches of science have been used to study language. Acoustic instruments record and analyze the sound waves of speech. Communication engineers try to modify the sound waves without impairing intelligibility. Experimental psychologists conduct perceptual studies of spoken and written language. Physiology is used to dissect the synergic movements of the chest, throat, and mouth when speech is produced and also to describe the delicate sensory mechanisms of the ear Anthropologists consider language as a part of any culture they study, and some anthropologists are active contributors to linguistics. Philosophers, particularly logicians, try to discover the extent to which philosophy and science depend upon the language used to express them. Philologists, who are interested in the literature of a particular culture, find it necessary to analyze a language carefully in order to determine that they have accurate texts Speech teachers, in their efforts to improve normal speech and to retrain pathological defects of speech, conduct a wide variety of experimental studies of linguistic communication. Political scientists use linguistic form, as well as content, to deepen their analyses of political documents Neurologists puzzle over linguistic problems, particularly those which arise when damage to the brain produces aphasia. Child psychologists trace the unfolding process of speech development, and social psychologists explain many social processes in terms of the verbal habits of the members of the social group.

Psycholinguistics is an attempt to relate these diverse approaches into a single coherent picture of language. It is obvious, therefore, that the psycholinguist must be a man of broad scientific interests and training, but that even with these assets he faces a perplexing task. How is such an integration of linguistics and psychology, both broadly conceived, to be brought about?

AN OUTLINE FOR PSYCHOLINGUISTICS

Psycholinguistics is a very young child of two reasonably mature behavioral sciences and it is not yet entirely clear what it includes or how it will develop It should presumably include all those parts of psychology that a linguist should know about and all of linguistics that should be studied by a psychologist. What is not clear is just how far each science overlaps the other or how the separate conceptual schemes used in the two can be formulated in a common vernacular for purposes of comparison and mutual supplementation. In this section an attempt is made to outline a relation between linguistics and psychology that will suggest how the two might well cooperate in rearing their young offspring.

The activities of a scientist include description, measurement, and control. Such subdivisions of scientific endeavor have little absolute value, but they serve to orient our discussion. When the subject matter of the science is language, or more generally the communicative behavior of human beings, then it is necessary to describe that behavior, to measure its occurrences, and to discover what variables in the peoples and in their environments exert control over its form and substance.

The first of these tasks, the description of the behavior, is largely the responsibility of the linguist. His task is to analyze the stream of sound into elements or units that have some

*Excellent introductory chapters on language have been written for social scientists by Sapir (1933) and by Esper (1935). The interested reader is strongly urged to study them both.

functional importance and to show how these elements are related in the sequential flow.

The second task, the measurement of the behavior, can be regarded in any of several ways For example, a physicist might measure the acoustic properties of the sound, or a statistician might measure the probabilities of occurrence of the elements or sequences of elements, or the psychologist might measure the meaning or the intelligibility of the communication. Although these different kinds of measurement may seem hopelessly various, a deep insight into the nature of communication is achieved when we realize that all of them are basically statistical measures This insight has been stated as follows: communicative behavior is necessarily unpredictable (otherwise it would be unnecessary) and the only way we have to treat unpredictable events is in terms of statistics. The recognition of this statistical nature of communication has done much in recent years to relate and unify the work of diverse disciplines.

Task number three, the control of communicative behavior, is largely the responsibility of the psychologist. Since communicative behavior relies on two intermeshed processes, production and reception, the psychologist subdivides his task into two parts. On the one hand, he is interested in those conditions that cause a talker to learn a language, to produce it on occasion, and to use it in solving his problems. On the other hand, the psychologist wants to know what aspects of the language must be preserved so that the message remains intelligible and persuasive for the listener. These are referred to traditionally as the problems of learning and of perception

These three tasks can be conveniently labelled as the linguistic, the statistical, and the psychological aspects of psycholinguistics That is not to say that only linguists should or can work on the linguistic aspect, or that linguists must not invade the other two fields, and similarly for psychologists In fact, it is the increasing frequency of such invasions that has made psycholinguistics necessary. These are not airtight compartments, but areas of major interest and responsibility. The linguist will do a better job of describing verbal behavior if he knows the statistical and psychological aspects. The statistician must know the linguistic elements to count and the psychologist must understand the formal properties and frequencies of occurrence of linguistic structures if he is to control them by manipulating learning, motivation, and perception. In view of their interdependence, these workers must find a common language for talking about language. Such is the first task of psycholinguistics.

To survey in detail the whole range of psycholinguistics in this chapter is neither possible nor necessary. Many of the psychological aspects that would have to be included in a definitive treatise are covered in other chapters of this Handbook. Consequently, major emphasis here has been placed on the linguistic aspects, and the psychology has been confined to a cursory summary.

Linguistic Aspects

The modern science of linguistics broke away from philology and became a separate discipline toward the end of the nineteenth century. The first linguists were primarily philologists, but as their scientific sideline began to reveal more and more lawful results, the study of linguistics as an independent discipline emerged. Jesperson (1922) has provided a short historical summary of this gestation period.

A philologist is a general scholar of the culture of a nation. He studies the language of that nation as a means to an end, in order to gain access to the literature of the culture. For a linguist, however, the study of a language is an end in itself and some of the most interesting languages have no significant literature at all. The popular notion that a linguist is a man who speaks many languages is only partly true; a polyglot is a linguist only if he uses the methods of linguistic science to reveal the parts and structure of language systems.

The development of modern linguistics in America was profoundly influenced by Boas, Sapir, and Bloomfield. These men and their students worked to make linguistics an exact science with an unambiguous methodology and a consistent application of basic concepts. Linguistics in Europe, on the other hand, has, under the influence of de Saussure, Jesperson, Trubetzkoy, and others, held a broader view and has wandered more freely into areas that American linguists would characterize as philology, psychology, phonetics, anthropology, sociology, or philosophy. European linguistics has tended, on the whole, to be less rigorous and more interesting than American.

An illustration of the difference between the American and the European traditions can be found in their attitude toward psychology. Some American linguists have attempted to construct a science of linguistics without any appeal to psychological facts. This school could almost

be characterized as an experimental attempt to test how far structural analysis can be carried without reference to those functional aspects that are the principal concern of the psychologist Their task is quite similar to that of the cryptographer who tries to "break the code." Most European workers, however, have been more inclined to admit that psychological factors are indispensable in the solution of many linguistic problems In recent years, the American and European attitudes have grown closer together, the Americans broadening their scope and the Europeans sharpening their definitions

The science of linguistics can be divided into three branches the descriptive, the historical, and the comparative. We are concerned here principally with the methodology of descriptive linguistics and shall only mention historical and comparative studies in passing

The problem of descriptive linguistics is to give a complete, consistent, and economical description of the elements of a language and the patterns in which these elements occur. Bloch and Trager (1942) have given a short outline of how such a description can be constructed and a more technical and advanced treatment can be found in Harris (1951).

Two kinds of elements are used in the description of a language. One kind of element is the *phoneme,* the other is the *morpheme* Speaking loosely and inaccurately, phonemes are the sound elements and morphemes are the word elements of the language. The statement of rules for combining phonemes into morphemes is called the *morphology* and the statement of rules for combining morphemes into phrases and sentences is called the *syntax*. Morphology and syntax together comprise the *grammar* of the language. The task of describing the language, therefore, consists of discovering its phonemes and morphemes and outlining its morphology and syntax.

PHONEMES

Historically, the idea of the phoneme seems to have originated with de Saussure (1922), although the term "phoneme" appeared earlier. The first attempts to define the sounds of speech were couched in terms of static positions of the articulatory organs and stable acoustic patterns. As experimental observations began to reveal a great variability in articulation and in acoustic composition, it became obvious that the sounds of speech are not fixed, stable, static, dependable configurations. De Saussure looked for an underlying uniformity in this diversity. His answer to the problem was to distinguish between a conceptual language, *la langue,* and actual speech, *la parole*. In *la langue* things are stable and constant, whereas in *la parole* things are unstable and variable. The stable elements of the conceptual language are what de Saussure called phonemes. For linguistic purposes the phonemes replaced the highly variable sounds that occur in actual speech. Thus a talker might produce a great hodge-podge of vocal signals, but the symbols he was trying to produce were really the phonemes In this way de Saussure began the distinction between *phonetics* and *phonemics*.

The reasoning begun by de Saussure was continued by Trubetzkoy (1939) and others. Trubetzkoy looked for the fundamental oppositions, the variations of sound that produce a change in meaning for the people who speak the language. Many variations in *la parole* are irrelevant because they do not produce a change in meaning Thus Trubetzkoy formulated most explicitly the important insight that the significant articulations of any language are relative in character and limited in number. Jakobson has placed particular emphasis upon the various aspects of the spoken sounds that are in opposition in any particular language. These aspects are called the *distinctive features* of that language, and a phoneme has been defined as a bundle of distinctive features (see, for example, Jakobson, Fant, and Halle, 1952).

Jakobson (1940-42) has used the distinctive feature to describe the development of speech during infancy and the deterioration of speech during aphasia. We shall use his work to illustrate the linguistic concepts and their application to problems of psychological interest.

The relative chronology of speech development is always the same, Jakobson argues, although the absolute time at which the successive stages occur differs from one child to the next. A child passes through an early babbling stage during which all the sounds of his own and other languages are playfully produced. Later, however, when he begins to utter words, he is unable to make these same sounds for the purposes of communication. That is to say, his phonetic play comes naturally, but phonemic skills are slowly and patiently learned.

The first opposition that the child learns is between vowel and consonant, between sounds made with the vocal tract open and sounds made with the tract closed. This opposition gives the child an *a* vowel (as in *Mama*) and an *m* or *b* type of consonant. Next, the consonantal opposition of oral vs. nasal appears as the child begins to distinguish a complete stoppage of the vocal tract from a labial stop-

page that leaves a side path open through the nose. When the oral-nasal opposition appears, the child begins to use *p* and *b* sounds for meanings different from *m*. The third step is the opposition of labial and dental consonants — the stoppage of the tract occurs at the lips or at the teeth. By this time the child has distinguished *p* from *t* and *m* from *n*. These two distinctive features, oral-nasal and labial-dental, comprise the minimal consonant differentiation that is common to all languages of the world. The fourth stage occurs when the child begins to oppose open and close vowels. For example, *papa*, produced with an open vowel, is opposed to *pipi*, produced with a close vowel The fifth stage may go either one of two ways. Either he opposes palatal to velar close vowels (thus producing the "basic triangle" in *papa* — *pipi* — *pupu*), or he introduces a middle degree of closure (thus producing the "linear vocalism" in *papa* — *pepe* — *pipi*). In either case, a system of three vowels results. Taken together, these two systems comprise the minimal vowel differentiation that is common to all languages of the world. Beyond these earliest stages a child's development will differ in detail according to the distinctive features of his particular language, but will follow certain general rules. Jakobson argues further that the linguistic features lost last and recovered first during aphasia follow the same order as for the child: (a) vowel-consonant, (b) oral-nasal, (c) labial-dental, (d) open-close, and (e) either palatal close-velar close or three degrees of closure.

So much for Jakobson's application of linguistics to development and aphasia. The linguistic approach centers attention upon the underlying dimensions, the basic oppositions that become distinctive and acquire significance to the child, and uses these dimensions to bring order into the great variety of different sounds that the child produces. It would be desirable to present these ideas more fully, since they have not been well known in the United States outside of linguistic circles.

The description of the phonemes of any language in terms of about a dozen distinctive features has been one of the most important achievements of linguistic science. The phonemes are not unique, unrelated signals selected at random to make up the language — the phonemes are determined by the particular discriminative dimensions that the language happens to employ. It is these underlying dimensions that the talker must respect and the listener must recognize for communication to succeed.

MORPHEMES

The second unit needed for the description of a language is the *morpheme* Bloomfield (1933) introduced the morpheme into linguistics by analogy with the phoneme. It is tempting to say that if the phoneme is the irreducible element of sound, the morpheme is the irreducible element of meaning. The definition of a morpheme in terms of such a vague psychological concept as meaning, however, does not do justice to the work of Harris (1942, 1946, 1951), Hockett (1947), and others. As in the case of the phoneme, an attempt has been made to isolate morphemic units by an analysis of recorded utterances without reference to meaning or signification. Harris has carried this attempt as far as seems feasible with a technique for handling morphemes that is systematic and mechanical. His procedure consists of cataloguing all sequences of phonemes, discovering the recurrent patterns, and grouping these patterns into classes according to the context in which they occur. This approach does not deny the existence of meaning, but merely refuses to use meaning as a basis of classification. The classification of a sequence of phonemes as a morpheme must be based exclusively on form, that is to say, on differences and similarities in the phonemic structure of the sequence or on the occurrence of the sequence in particular types of phrases and sentences.

Whether or not it is possible to analyze a language when we do not know its meanings, it is certainly easier when they are known. What the linguist is after have traditionally been called *root* (or stem or radical) words and *affixes* (prefixes, infixes, and suffixes). For example, the English word *going* is comprised of two morphemes, the root *go* and the suffix *ing*, and the English word *apart* is composed of the prefix *a* and the root *part*, etc.

It should be noted that descriptive linguistics does not necessarily produce a list of words In English most morphemes do turn out to be simple words, although some morphemes are affixes. In certain exotic languages, however, it is difficult to discern what constitutes a word. At least, linguists have not been able to formulate laws for discovering words that work as generally as do their laws for discovering phonemes and morphemes. The inability of the linguist to identify words in a rigorous way is puzzling to the layman, who tends to identify words as the basic building blocks of a language. Part of the answer, of course, is that habits of writing and reading English have imposed cer-

tain habitual ways of thinking about words. In English, therefore, it is possible to define a word as what is symbolized by a written sequence of letters separated from other sequences by spaces This definition is meaningful so long as we confine attention to the verbal behavior of literate, English-speaking people, but it is of little value to a linguist who wants to study languages that have never been written or who wants comparable units for the purposes of cross-cultural studies.

In general, linguists distrust the written form of any language. In the early days of their science, philologists tended to confine their attention to written literature and in this way overlooked many of the true relations among different languages, relations that became obvious only when the languages were spoken. Today the emphasis in linguistics is almost entirely on the other side, on the spoken language. Some linguists have overreacted to the original mistake, for they advise social scientists to avoid the word as a unit and to mistrust all forms of written language. However, this advice can be ignored safely if there is no intention of extending the work across cultural boundaries.

As Sapir (1921) has pointed out, the fact that linguists cannot always find a satisfactory rule to tell whether a particular element of speech is an independent word or part of a larger word may be puzzling, but it does not materially weaken the case for the psychological validity of the word as a unit. Sapir describes the behavior of an Indian, quite unaccustomed to the concept of the written word, who would dictate to the recording linguist word-by-word, but he regularly refused to isolate the morphemic elements on the ground that "it makes no sense."

In summary, the goal of morpheme analysis is a *lexicon,* a list of the morphemes in the language. The rules that are derived from the analysis concerning the arrangement of morphemes in the language comprise the syntax.

SYNTAX

Consider a simple English sentence, *the boy hit the ball.* From a dictionary (or lexicon) it is possible to learn what *boy* and *ball* are and what it means to *hit.* What the dictionary cannot tell, however, is how the following sentences differ: *hit the boy the ball, the ball hit the boy, the boy hits the ball, the boys hit the balls,* etc. The differences in meaning among these several sentences have nothing to do with the *lexical meanings* of *boy, ball,* and *hit.* The differences depend upon how these individual words are combined and related within the sentence — the differences have to do with *structural meanings.*

Together the lexical and the structural meanings comprise the *linguistic meaning* of the sentence. Of course, the total meaning of a sentence may include far more than just its linguistic meaning. For example, *the boy hit the ball* could, in the proper context, mean that the boy was responsible for a broken window.

In discussing problem solving it is convenient to distinguish categorizing, relating, and inferring activities. The situation here is similar: the lexical meaning depends upon the categories that *boy, ball,* and *hit* designate, the structural meaning depends upon the relations among these lexical elements as they are combined to make a sentence, and the extralinguistic meaning depends upon the inferences that can be drawn when the sentence is embedded in a context of other information.

The purpose of syntax is to make explicit the devices that a language uses to convey structural meanings. These devices are just as definite, explicit, and indispensable as are the lexical elements, although they are usually less obvious to the people who use them. The borderline between lexical and structural meaning is a little hazy in English (e.g., does *the* have both lexical and structural significance?), but in most instances the distinction is clear. Not all languages agree as to what should be lexical and what structural, meanings that in one language are conveyed by structure may depend upon the choice of words in another language. In all languages, however, use is made of structural features — it is particularly in this respect that the communicative behavior of human beings is more complex than that of any other animals.

Psychologists who have tried to use traditional grammar to characterize the verbal behavior of their subjects have usually encountered some frustrating problems. The grammar that our schools have taught for over a century is based more upon how people ought to talk than how they really do. What even well-educated people actually utter during an ordinary conversation seldom fits the criteria of traditional grammar.

The syntactic rules of a language should indicate how people who speak the language combine words (morphemes) in sequence to form sentences. But what is a sentence? The traditional answer is that a sentence expresses a complete thought. The criterion of completeness apparently is the feelings of the author about it. To make this definition less vague, it is usually decreed further that a sentence

must have both a subject and a predicate. Since many complete conversational utterances do seem to be sentences but do not have both a subject and a predicate, it is assumed that the missing words are "understood." Thus a traditional grammarian who encounters problems in analyzing actual speech can either (1) edit it into an acceptable form by adding imaginary words that are "understood," or (2) condemn the whole thing as a mistake in grammar. For the scientist who wants to describe human behavior, whether right or wrong, neither alternative is very attractive.

The traditional approach to the delineation of the sentence as a linguistic unit has been in terms of its meaning, the thought content that the sentence must express. In the words of C. C. Fries (1952, p. 18),

> Most of those who have sought to define the sentence . . . have tried to find universal characteristics of meaning content for this speech unit — characteristics that could not only be identified in the utterances of all languages, but would serve also as defining criteria of the sentence in any language. They have assumed that "language is a reflection of thought," and that grammar, which was assumed to be the "laws of language," must therefore represent the laws of human thought. Sometimes it has been explicitly asserted that "the human mind thinks in sentences," "understands in sentences." Therefore, it is argued, the basic characteristics of the sentence, the "essence of the sentence" must be something common in the utterances of all languages.

Such assumptions provide a poor basis for scientific progress in either psychology or linguistics.

Fries' own work on the structure of English can be used to illustrate a modern, descriptive approach to syntax as contrasted with the traditional, normative approach presented, for example, by Curme (1931). Fries works with recordings of actual conversations and tries to classify the speeches he records by purely objective criteria, criteria that depend more on the form or structure of the material than on its meaning or thought content. We shall present some of these descriptive methods rather briefly.

A conversation is easily divided into *utterance units* marked by a change of speaker. These units can be classified (1) on the basis of the situation that led to them or (2) on the basis of the kind of response that usually follows them. For example: (1) Some units begin a conversation whereas other units continue it. Many continuing units differ completely from anything found among the beginning units. (2) Some utterance units are regularly followed by vocal responses only, some are followed by actions, some are accompanied (not necessarily followed) by brief vocal signals of attention. Greetings, calls, and questions elicit vocal responses, requests (or commands) elicit action responses, and statements elicit continued attention. Since a listener responds differently to these three kinds of sentences, he must be able to distinguish among them. If a listener can distinguish which kind of utterance he is hearing, there must be some objective devices or signs that he uses. For example, *is the blib verned, vern the blib,* and *the blib is verned* are recognized as a question, a request, and a statement, even though the lexical meaning is unknown. Part of the linguist's job is to discover what structural properties of an utterance the listener uses for this discrimination. (Intonation provides part of the answer, but the relation of intonation to sentence type is not simple.)

A third way to classify utterance units is to note whether they consist of a single free utterance or of more than one. A *free utterance* is one that can stand alone in English. A free utterance is what we would ordinarily, but not always, call a sentence. An example of the difference between free utterances and sentences (as traditionally defined) is easy to produce. Ordinarily, *the dog barks* is called a sentence, but *the barking dog* is not. However, in *run when the dog barks* the last three words are not a free utterance because they are part of a larger linguistic structure. And in the conversation, *what woke you — the barking dog,* the reply is certainly a free utterance.

Imagine that a great many conversations have been recorded and that the utterance units have been classified in all these various ways. Now suppose that attention is confined to just one class of utterance units, say, the single free utterances that are statements and that begin a conversation. In this set of utterances we might expect to find the following:

the concert was good
the picture was good
the weather was good
the teaching was good

etc., a subset of utterances that differ in only one position in the sequence. The structural meaning of all these utterances is the same.

It is assumed that all words that can occupy the same position in a single free utterance must belong to the same *part of speech.* Thus *concert, picture, weather, teaching,* etc., all belong to the same part of speech. In order to decide whether any particular word can belong to this

part of speech, it is necessary only to substitute it into the test frame:

(*the*) ———— *is/was good*

————*s are/were good*

If the structural meaning is unchanged by the substitution, then the tested word belongs. Thus *rain* belongs but *rainy* does not, *part* belongs but *apart* does not, *failure* belongs but *fail* does not, etc All words that can be substituted into this test frame are Class 1 words.

The word *the* always signals that a following word belongs to Class 1, but Class 1 words are not always preceded by *the*. Thus *the* is optional in the test frame.

Other parts of speech can be defined in a similar manner by substituting into standard test frames. The Class 2 words are any that can fit into test frames like the following:

(*the*) (Class 1) ————*good*

(*the*) (Class 1) ———— (*the*) (Class 1)

(*the*) (Class 1) ————*there*

Any Class 1 words can be substituted as indicated. For instance, *the concert sounded good, waitresses served the coffee, the family lived there,* etc.

Class 3 words can be tested by a double position in the following kind of frame:

(*the*) ———— (Class 1) *is/was* ————

———— (Class 1)*s are/were* ————

For instance, *the blue sky is blue* or *big houses are big* show that *blue* and *big* are Class 3 words.

Class 4 words can be tested by frames like this:

(*the*) (Class 1) *went* ————

For instance, *the men went there* or *the time went slowly* show that *there* and *slowly* belong to Class 4.

These four parts of speech correspond approximately, but not exactly, to what traditional grammar has called nouns, verbs, adjectives, and adverbs. To identify these four classes with the traditional concepts would, however, miss the entire point of what Fries is trying to do.

Not all English words will fit into one of the test frames. For example, such important little words as *the, of, not, yes, very, and, what,* etc., cannot be substituted into any of the test frames without changing the structural meaning. Such words are called *function words*. Thus English uses two different kinds of words, the parts of speech and the function words. There are only about 150 function words in English, but they comprise almost a third of all the words we utter; function words are frequently repeated. The function words (other than *the*) are introduced when the simpler sentence structures are expanded and elaborated. Function words occur alone in free utterances only to continue a conversation, not to begin one. In most cases, function words do not have any clear lexical meaning, they live on the border between the lexical and the structural.

The most important difference between parts of speech and function words, however, is that in order to respond to certain structural signals one must know the function words as individual items. For example, *they ran, men ran,* and *engines ran* are all statements, but *what ran* is a question. In order to recognize that *what ran* is not a statement, it is necessary to know something special about *what,* that it signals a question in that position. For each of these 150 special words, therefore, the person who wants to speak English must learn a separate and particular function, the particular structural meaning that each one represents.

One way to demonstrate the importance of function words is to examine their role in resolving structural ambiguities. *Ship sails,* for example, is structurally ambiguous because it may be either a request or a statement. It is not clear whether *ship* is a Class 1 word and *sails* a Class 2 word, or vice versa. It is necessary, therefore, to use a special signal, *the,* to mark the Class 1 word: *the ship sails* or *ship the sails.* (It is interesting to note that *-ed,* a signal for Class 2 words, also eliminates any ambiguity: *shipped sails* or *ship sailed.* Thus it is clear that an affix can play much the same role as a function word and that the English rules which say that morpheme *the* is a word whereas morpheme *-ed* is not are somewhat arbitrary.)

Fries carries his study of English structure much further than we can pursue it here. These examples must suffice to give the flavor of the new descriptive approach to grammar, an approach much more congenial to psychologists than the dusty dogma of the past.

In summary, descriptive linguistics dissects human speech into smaller and smaller elements. All known languages can be analyzed in the same way. A conversation is broken into utterance units and these in turn are divided into sentences that can be analyzed into morphemes made up of phonemes that are bundles of distinctive features. Each level in the hierarchy is composed of elements from the level below arranged in a pattern that the linguist

must discover and describe. No other aspect of human behavior has received the same degree of exact, painstaking scientific analysis.

HISTORICAL LINGUISTICS

Concerning historical linguistics, we can note that changes occur in the history of any language and that these changes seem to follow certain regular laws in some cases. Linguists usually distinguish at least three kinds of changes: (1) semantic changes which occur when a word is extended to a new situation and given a new meaning, (2) phonetic changes which occur when the habits of pronunciation change, and (3) analogic changes which occur when the pronunciation of a word is changed to correspond with the pronunciation of associated words.

Since the records of these various kinds of changes in natural languages are principally written and since written records are notoriously poor reflections of the true phonetic state of affairs, it is a difficult job to trace the changes in the history of the language and to attribute the changes to reasonable causes. Consequently, the forces that operate in the evolution of the language are poorly understood today. It might be possible to investigate the development of verbal habits by using artificial languages. A beginning was made in this direction by Esper (1925) and Wolfle (1932).

COMPARATIVE LINGUISTICS

The job of comparative linguistics is to discover which languages are historically related to one another. A linguistic community often divides in such a way that two parts evolve different but related languages. Comparative grammar attempts to reconstruct the features of the language spoken by the original community on the basis of the features of the two descendant languages. Establishing such relations between two languages is a difficult, technical undertaking.

As the detailed descriptions of more and more languages accumulated, some linguists noticed that two languages could be similar in structure even though they were historically independent and unrelated. Broadly similar linguistic structures must have been developed by unrelated peoples, independently and frequently. This fact has tempted linguists to classify languages into types. For example, it is often said that there are three types of language: the *agglutinating* type, like Turkish or Finnish, that have relatively long words, usually with elaborate declensions; the *isolating* type, like Chinese, whose words are strung together in a sentence without any change of form; and the *inflecting* type, like most of the Indo-European and Semitic languages, including English, in which the role of a word in a sentence is indicated by the affixes attached to it. The languages of the American Indians are sometimes added as a fourth, *polysynthetic* type of linguistic structure. It is also possible to divide languages into the *analytic,* the *synthetic,* and the *polysynthetic.* An analytic language like Chinese or English does not combine concepts into single words, but gives the principal role to the sentence. In a synthetic language like Latin the isolated word elements play a more important role. And in a polysynthetic language, the elaboration of the word is quite extreme An excellent discussion of problems of classifying languages was given by Sapir (1921). It seems unlikely that any simple typology will gain general acceptance except for the roughest kind of sorting.

English is considered to be a weakly inflected language, Latin a strongly inflected one. In English we say *they will give,* using three words to express what in Latin would be said by two suffixes in the single word *dabunt*. The *da-* and the *give,* the *-bu-* and the *will,* the *-nt* and the *they* serve much the same purposes in the two languages. How, then, are the two languages different in any significant way? The difference begins to appear when these units enter in combination with other words. For example, in English we would say *the men will give,* but in Latin we would say *viri dabunt* — English drops the *they,* but Latin retains the *-nt* even though it is redundant In sum, the inflectional affix is rigidly bound to the word in Latin, whereas in English there is more flexibility. In return for this greater coalescence of its morphemes at the word level, however, Latin gains greater freedom at the sentence level. Since the Latin affixes signal the parts of speech and the functional groupings, no stringent restrictions need be placed on word order. In English we are less free with word order because we must use it to signal these same structural meanings

The difference between English and Latin appears insignificant, however, when we compare them with some of the languages spoken by the American Indians. The Nootka language of Vancouver Island, for example, is said by linguists to have no parts of speech. This polysynthetic language operates by adding long strings of suffixes to a root morpheme. Two root elements cannot be combined in a single sentence. There do not seem to be any words in Nootka; the simplest utterance is a sentence

and long utterances are simply sequences of sentences.

In spite of these great differences in structure, linguists are of the opinion that any concept can be expressed in any language. A particular concept may be easier to verbalize in one language than another, but it is not impossible in any language. Furthermore, it is agreed that there is no correlation between the type of language (inflecting, isolating, etc) and the type of culture (agricultural, hunting, etc.). Of course, a generalized style of thought in a particular culture may be detectable in lexical and syntactic forms, but such relations are subtle and difficult to establish (see, for example, Whorf, 1949).

The main body of the science of linguistics consists of the records of actual languages, analyzed according to the principles outlined above and interrelated by their history and their linguistic structure As psychologists, we do not wish to pursue the substantive content of scientific linguistics and so we turn our attention now to certain statistical problems that have been peripheral to the interests of the scientific linguist.

Statistical Aspects

Communication is said to occur when a source of messages transmits signals over a channel to a receiver at the destination. The transmitted signals usually have a representative function and are combined according to rules agreed upon in advance by the source and the destination. These rules of reference and of combination comprise a system that can be referred to as a *code*. A wide variety of communication systems can be discussed in these terms. The system of interest in the present chapter is, of course, the vocal communication system. The signals are *speech* and the code is *language*. What we want to do in this section is see how the general theory of communication, a theory applicable to any kind of communication system, can be used to understand linguistic phenomena.

When information is communicated from one place to another, it must have a channel to travel over. If a message is put in at one end of the channel, another message comes out the other end. Thus it is natural to talk about the *input* and the *output* from the channel. If it is a good communication channel, the input and the output will be closely related, but they are usually not identical. The input is changed, more or less, in the process of transmission. If the changes are random, statistical fluctuations, then the communications engineer talks about noise in the channel. Thus the output depends upon both the input and the noise.

When a communications engineer undertakes to construct a channel for a particular use, he is interested in knowing that the channel will have sufficient capacity to carry all of the messages that may be sent over it. To specify the capacity, he must be able to measure amounts of information. Communication engineers have developed a statistical way to do just that.

INFORMATION MEASUREMENT

The basic notion underlying the measurement of information is that information is something to reduce uncertainty. For example, imagine facing a choice among a large number of possibilities Anything that gives information about the choice will reduce the number of possibilities. A message that reduces the number of possibilities a great deal gives a large amount of information. The convention has been adopted that every time the number of alternatives is reduced to half, one unit of information is gained. This unit has been called one *bit* of information (Shannon, 1948). For example, if an event can occur in any one of a hundred ways, and if a message eliminates fifty of these possible outcomes, then that message carries one bit of information. Another message that reduces the number of alternative outcomes from 100 to 25 would carry two bits of information, etc. The development of these ideas leads to the definition that the amount of information in any event can be defined as the negative logarithm of the probability of that event. In this way the concepts of amount of information and probability of occurrence are tied together.

Notice that this definition is concerned only with the *amount* of information — the amount does not specify the content, value, truthfulness, exclusiveness, history, or purpose of the information. Because of the particular way in which the term "information" is used, this quantity has often been called the amount of selective information. The measure tells how many binary decisions (bits) would have to be made correctly in order to select the actual message out of the set of all possible messages that could have occurred.

In addition to the amount, it is also possible

to quantify other aspects of the information. Marshak (1952) has suggested a way to measure the *value* of a particular item of information If one is able to calculate the value of his expected situation when he knows the item of information and can contrast that with his expected situation when he does not know the item of information, the difference between these two expectations can be used as a measure of the value of this item of information. For example, in matching pennies he would expect on the average to break even, neither to win nor to lose. However, if he knew in advance what his opponent's decision was going to be, he could win every time. The difference in expectation when the opponent's choice is known and when it is not is one cent per throw If this information can be obtained at less than one cent a throw, it is a bargain. In order to measure the value of inquiry in this way, it is necessary to know the probabilities of winning with and without the information. Given these probabilities and the size of the bet, the value of the information is easy to calculate.

In a similar way, it would be possible to develop a measure of the *reliability* of information in terms of the probability that the outcome will be what the message predicts it to be. The principal characteristic of the amount, the value, and the reliability of an item of information is that all three depend upon the probabilities involved. But before we can speak of the probabilities of the messages, a statistical analysis is necessary.

VERBAL STATISTICS

The statistical analysis of a language takes up where descriptive linguistics leaves off. Once an exhaustive list of the elementary units has been prepared by a linguist, it is a natural question for a statistician to ask which units are used most often. To discover the relative frequencies of occurrence of the different elements, one simply takes a representative sample of discourse in the language, transcribes it into the linguist's phonemic notation, and starts counting. It takes both linguistic skill to transcribe the passage and statistical skill to select the passage and to evaluate the results in order to carry this research through successfully. Unfortunately, this combination of skills has been relatively unusual The linguist, whose job is to construct a usable grammar, has little need for statistics in his everyday work, and few statisticians know a phoneme from a phonograph.

Most studies of verbal statistics have consisted of counts of words in written materials. Since these counts do not deal with the spoken language, they have little interest for linguists The statistical analysis of the results has been quite crude in most cases. Perhaps the best known result is called "Zipf's law" This general law states that $fr = c$, where f is the frequency of occurrence of the word, r is the rank order of the word when all words are ordered with respect to their frequency of occurrence, and c is a constant depending on the size of the sample (Zipf, 1935). For example, if *the* is the most frequent word in the sample, occurring, say, 1000 times, its rank is one, so $fr = 1000 \times 1 = c$, therefore, the second most frequent word should occur 500 times, so that $500 \times 2 = 1000$, the third should occur 333 times so that $333 \times 3 = 999$; etc.

Yule (1944), a statistician, has attempted a more elaborate analysis using compound Poisson distributions that have previously been useful in analyzing the frequency of accidents in industrial situations More recently, Mandelbrot (1953) has explored the conditions under which the type of distribution described by Zipf would be an optimal strategy for the talker-listener coalition to adopt, optimal in the sense that they should lose the minimum amount of information to their common adversary, Nature.

In the crudest sort of terms, two results have turned up in all the studies of relative frequencies. The first is that some words are used much more frequently than others and that the vast majority of possible sequences of phonemes does not occur at all. The second result is that, on the average, an inverse relation holds between the length of a word and its frequency of occurrence. The most frequently used words are largely monosyllables. These two results have been obtained in every language that has been analyzed statistically. Zipf's discussion (1935) of these results involves matters of interest to both linguists and psychologists.

What is the relation between statistical observations like Zipf's law and the statistical theory of information as developed by Shannon? The question can be approached this way. Communication theory provides a yardstick for measuring amounts of information. Suppose two signals contain exactly the same amount of information, but that one is shorter than the other. Clearly the shorter signal is carrying more information per unit of length; it is a more efficient signal in terms of information per unit length. It is reasonable to ask, therefore, what the most efficient signal would be like; what properties would the signal need in order to convey the maximum amount of information per unit length? The answer to

this question is quite simple. The most efficient method of encoding information is to use every alternative element (e g , phoneme or letter or sequence of elements) just as frequently as every other. A code of equiprobable elements, however, is exactly what we do not use. Zipf's law describes the fact that some elements are greatly overworked, while most elements are rather rarely used.

We conclude, therefore, that we employ our linguistic elements quite inefficiently. Our written sentences are four or five times longer than they would be if all sequences of letters were equiprobable. This excess verbiage is redundant, and so we turn next to the question of why we tolerate so much redundancy in our verbal behavior.

REDUNDANCY

The recent advances in the theory of communication engineering have stimulated renewed interest in the statistics of language. The communications engineer must build channels capable of carrying signals from the source to the destination. To build his channels with sufficient capacity, it is necessary for him to find a satisfactory statistical characterization of the signals that the channel must carry.

Imagine that the sequence of linguistic elements is generated by the type of stochastic process called a "Markov chain." In a Markov chain the outcome of the *n*th event in the chain depends upon the outcome of the immediately preceding event in the chain. It is obvious that such a mathematical model could be useful to describe linguistic chains, because the *n*th linguistic element in connected discourse depends upon the immediately preceding elements in that discourse. We do not choose our next word independently of the words we have just said.

Communication engineers have used the Markov chain as a model to describe the probabilities of linguistic units. According to this theory, the interest is shifted from the probabilities of the isolated elements (phonemes or words) to the dependent probabilities observed in sequences of those elements. Although current interest in the Markov model stems from the work of Shannon, the idea is not new; one of the first examples which Markov himself used to illustrate the usefulness of his mathematical theory was a linguistic one (Markov, 1913).

If the *n*th element in a sequence depends upon the preceding elements, then the *n*th element can, to a certain extent, be predicted from a knowledge of the preceding elements. The fact that the *n*th element can be predicted with some accuracy from the history of the message means that some of the information conveyed by the *n*th element must have been contained in the preceding elements. That is to say, the *n*th element repeats some information already given by the preceding elements and, therefore, the *n*th element is *redundant*. The better we can predict the future of a signal from its past, the more redundant the code is.

One of the most important consequences of applying communication theory to natural languages is the definition and measurement of redundancy. An imaginary example will clarify this important concept.

Imagine a language that has just two symbols, 0 and 1. This language is to be used to provide names for four objects. Since four names are needed and only two symbols are available, it is necessary to use sequences of the symbols in order to obtain the four names. The simplest solution is to use 00, 01, 10, and 11 as the four names. The advantage of this solution is that all the names are as short as possible No unnecessary symbols appear in the names, so there is no redundancy In terms of sequential dependencies, if we know what the first symbol is, we do not know anything more about the second symbol — the history contains no redundant clues about the future of the name. All sequences are equiprobable. Consequently, the amount of information per symbol is a maximum with this solution. The disadvantage of this solution, however, is that these names are very susceptible to confusion. If one of the symbols is changed at random by noise somewhere in the system, the error converts one possible name into another possible name and there is no indication that a mistake has occurred.

Although the efficient solution is unique, there is an infinite variety of redundant solutions. For example, the simplest kind of redundancy is simple repetition. If the symbols of the names described above are just repeated, the result is 0000, 0011, 1100, and 1111. Clearly these four names are longer, more symbols are used than are needed, and so the names are redundant. In terms of sequential dependencies, if we know what the first symbol is, we know that the second symbol will be the same, the history contains redundant clues about the future of the name. Consequently, the average amount of information per symbol is just half as much as in the nonredundant solution above. However, the advantage of this redundant solution is that when random mistakes occur they

will probably be caught. It requires at least two mistaken symbols to convert one possible name into another possible name Most mistakes convert a name into a meaningless sequence of symbols. For example, if 1011 occurs, we know a mistake has occurred.

In short, the advantage of redundancy is that it can provide a way to detect random errors. If errors are likely to occur, if the communication system is noisy, some kind of redundancy is needed to combat the deleterious effects of the noise.

The advantage of redundancy is that a random error converts a plausible input message into a highly improbable output message That is to say, most of the conceivable sequences of symbols must be highly improbable. But this is, in fact, exactly the situation revealed by all the studies of verbal statistics; a few elements are quite probable, many are used infrequently, and the vast majority of conceivable sequences of symbols do not occur at all. All natural languages are redundant, and in this way they achieve a measure of security against confusions and mistakes.

Shannon (1951) has estimated that the redundancy of printed English is something greater than 75 or 80 percent. We use at least four or five times as many letters to encode information as we would need if we used every letter of our alphabet efficiently, if all sequences of letters were equally probable. With this much redundancy, however, it is possible not only to detect the occurrence of random errors, but to correct nearly all of them on the basis of the contextual, or redundant, information alone.

Where does this tremendous redundancy come from? In a nonredundant language, all sequences of symbols are permissible and the past in no way limits the future of a signal. Therefore, the source of a nonredundant message has complete freedom to choose his successive symbols. A redundant signal, on the other hand, is constrained by its past. The source of a redundant signal is limited by context to only certain permissible sequences of symbols These constraints comprise the rules of the language, the morphology and syntax, that linguists labor so patiently to uncover. The linguistic rules of grammar, insofar as they limit the source's freedom of choice, have the effect of introducing redundancy into the statistical picture of the language

Although there has been considerable profit in the application of communication theory to the problems of human language, there is also a serious practical difficulty The detailed application of these ideas demands that we have reliable estimates of the dependent probabilities of elements in the language. At the present time statistical knowledge of isolated elements is scanty and our data on sequential probabilities are practically nonexistent. Only a tremendous expenditure of effort, probably involving the use of high-speed computing machinery, can provide the empirical frequencies that the theory requires. If a practical solution can be found for this computational problem, there is reason to think that statistical linguistics can become a thriving discipline.

Psychological Aspects

Earlier in this chapter it was suggested that the proper role for the psychologist on the psycholinguistic team is to control a talker's verbal behavior in predictable ways by manipulating his motivation, his environment, and his past experience. Although this assignment of responsibility does serve to discriminate the psychological from the linguistic aspect, it seems to ignore the problem that has been traditionally assigned to linguistic psychology. Traditionally, the psychologist is supposed to make his contribution by an analysis of the concept of meaning. Thus it might seem that we are here advocating a radical departure from established practice. That is not, however, the intent of the present suggestion. Rather, the task of analyzing meaning can make operational sense only when we realize that it involves discovering, by experimental variation and control, what aspects of the total situation are relevant to a speaker's behavior. To develop this idea, we can examine some of the alternative theories of meaning in enough detail to see whither they would guide our experimental analysis.

By "the problem of meaning" we shall here designate only lexical meaning, which seems to be the simplest case. If sense can be made of lexical meaning, then it should not be too difficult to extend the results to structural or even to nonlinguistic meanings. By lexical meaning we refer to the relation that exists between a symbol (word or morpheme) and the thing symbolized. A theory of meaning, therefore, is a statement about how this relation is established and maintained by the people who speak the language.

Even if we confine our attention to the lexical

meanings of the parts of speech and ignore function words, the situation is not simple The symbol-object relation can have as the object either a nonlinguistic or a linguistic entity That is to say, the symbol *light* is usually given meaning by forming an association between the symbol and a physical source of energy that impinges on the eye, whereas the symbol *Aristotle* can become meaningful only in terms of other symbols, either words or pictures. A large fraction of the words we know and use are of this second type — Osgood (1953) has called them *assigns* — where no direct contact has ever been made with the physical object or event that is referred to. It would simplify the job of analysis considerably if we could afford to ignore the assigns, but we cannot. The assigns force us to remember and to account for a major feature of meaning; the meanings words have are not independent of each other but are related and integrated in highly elaborate patterns of contrast, similarity, feeling, order, causation, completion, assonance, value, contiguity, etc. Even the word *light,* learned first as an isolated association between a vocal sound and physical source of energy, quickly becomes assimilated into the child's growing network of other words and relations among words. A theory of meaning that makes no allowance for these intraverbal relations has little psychological validity.

With the problem of meaning narrowed down to this extent, we now examine some of the explanations that have been proposed.

The most primitive account of the symbol-object relation attributes it to magic. The relation is supposed to be given by God or decreed by the nature of things independent of any action that man might take. This magical bond between the symbol and the object is a common assumption of primitive peoples, who often believe that operations performed upon the symbol can somehow affect the thing symbolized. Children in our own culture find this a natural attitude toward meaning and even sophisticated adults fall into it easily when they are not self-critical. As a scientific theory, however, the idea that symbol and object are inseparably bound together is worse than useless.

A more rational view of the problem can be termed mentalistic. Here the arbitrariness of the symbol-object bond and the necessity for some intervening human link between them is clearly recognized. The link is provided, however, by the mentalistic concept of the "idea." Symbol and object are related because both give rise to the same idea in the mind of the person who perceives them. This view is admirably argued by Ogden and Richards (1947) and is probably the conception held by most educated laymen today. It is not scientifically acceptable for two reasons first, the theory invokes a body-mind dualism between physical symbols and objects and mental ideas that is, if not magical, at least quite mystical and, second, inasmuch as ideas exist outside the realm of space and time, the theory is completely elusive of experimental observation. A theory that cannot be tested is of little value to the scientist.

A view that has gained some use among certain logicians might be stated as follows: you know the meaning of a proposition when you know those conditions under which the proposition would be true. This theory is similar to a mentalistic view except that it manages to sidestep the dualistic idea by replacing it with an undefined activity, "knowing the truth," that need not be mentalistic. Although such a logical theory of meaning may be adequate for all that logicians want to do, it is poorly suited for the psychologist. The major psychological problem, knowing the truth, is left untouched; no provision is made for isolated words to have meaning; no account is given of the complex structure of intraverbal relations; no assurance is given that truth is a simpler concept to define than is meaning. Thus, while not wrong, the theory is not applicable to most of the problems we need to study.

A similar criticism can be leveled at the more naive of the linguistic theories of meaning. A linguist wants to know what features of spoken utterances are significant. He wants to discover what features he must vary in order to produce a change of meaning. He selects a particular segment of an utterance and varies it while holding constant the context provided by the remaining part of the utterance. For his purpose, therefore, a simple behavioral indicator suffices; when the native's behavior changes, the meaning must have changed, and so the feature that was varied must be significant. For much of his work, therefore, a linguist can be content to know when meaning changes even though he may or may not know what the meaning is. Although this account does not do justice to linguistic theories of meaning, it does serve to illustrate that a linguist's requirements for such a theory are more modest than a psychologist's. Thus he, too, like the logician, wisely avoids the worst psychological problems.

A view of meaning that gained some credence during the early flowering of behavioristic psychology follows from a simple application of the principles of Pavlovian conditioning. This view has been called a substitution theory of

meaning, since it holds that the symbol is a substitute for the object itself. The object evokes certain kinds of behavior from the person. Any other object that is consistently paired with the original object will eventually, by Pavlovian principles, come to evoke the same behavior as does the original object. When something other than the original object comes to evoke behavior appropriate to that object, that something has become a symbol for the object. Apparently the elegant simplicity of this account blinded its advocates to the theory's bankruptcy. It is simply not true that symbols always evoke the same behavior as do the objects they symbolize, and with this prop removed the theory comes tumbling down. With modifications, however, the basic notion has been revived in more recent and more sophisticated theories of meaning.

A psychodynamic theory of meaning, one influenced strongly by Freud, Jung, and their followers, would place much greater emphasis on the relations among symbols than upon the relations of symbols to objects. This view would emphasize that a symbol is associated with other symbols that color and modify it at the whim of feelings and desires. Although such a view of meaning is implicit in most psychotherapeutic work and serves to highlight an aspect of meaning that many theories have ignored, it has not been formulated in terms adequate for direct experimental studies.

The psychologist B. F. Skinner (1947) is author of a theory of verbal behavior that has much of the spirit of the earlier substitution theory but draws upon the more recently discovered principles of operant conditioning (as opposed to Pavlovian). A cardinal feature of operant conditioning is that the occurrence of the correct response to the stimulus is followed by another stimulus, called a reinforcement, that serves to increase the probability that the correct response will occur again when the stimulus is presented. Thus a symbol becomes the response to an object because it is reinforced. It is reasonably easy to see how the principle of reinforcement would operate when a child learns to make demands; a demand is an utterance that can be quickly followed by compliance, which in turn serves to reinforce the probability that the demand will occur again. Why a child learns to utter statements of fact that benefit the listener more than himself is more difficult, but not impossible, to explain. Skinner emphasizes the importance of intraverbal relations and discusses them in terms of principles of generalization and discrimination that he derives from experiments conducted on rats and pigeons The application of reinforcement principles to verbal behavior gives some interesting results an area of verbal (or symbolic) behavior can be defined as any behavior that depends upon the intervention of other people to provide reinforcement, the accuracy and consistency with which parents and teachers can give or withhold reinforcements determines the speed of learning and clarity of definition that any word can acquire for a child, a fact which helps to explain why our language for feelings, emotions, and attitudes is so poor and ambiguous; verbal differentiations occur only if reinforcement depends upon making the differentiation, which explains why one culture develops an elaborate vocabulary for expressing distinctions among objects important in that culture, whereas another culture less motivated to distinguish these same objects will use only a few general terms; verbal behavior can occur (and be reinforced) in response to other verbal stimuli as well as in response to objects, so that a child learns to comment upon the verbal behavior of others and even upon his own, a process that enables him to edit his own behavior before it occurs overtly Skinner's reinforcement theory helps to explain much that can be observed in the development and maintenance of verbal behavior and it certainly is a tremendous advance over a simple substitution theory. Like the substitution theory, however, reinforcement theory leaves the student wondering what happened to the problem of meaning. Skinner's own view is that meaning poses a pseudoproblem; the meaning of any utterance is known only when all the conditions of motivation, perception, and past experience that led to the utterance are known. Since this approach makes impossible a complete understanding of the meaning of any utterance, it is futile to pursue meaning as a simple key to unlock the door to the psychology of language.

The reinforcement theory of verbal behavior proposed by Skinner illustrates how the problem of meaning grows in magnitude as we examine it more closely. In contrast to a simple, natural link between a symbol and an object, we are now asked to consider how a complex matrix of symbolic behavior depends upon the whole linguistic history of the talker, upon his motivation, his audience, his past experience with the topic he is discussing, his present perception of the situation he is in, his intraverbal associations with other words immediately preceding, etc. The object named is only one aspect of a multiply determined course of vocal behavior. The psychologist who wants to un-

derstand the meaning of any utterance must explore systematically each of those relevant dimensions, and by manipulating them, the experimenter should change the verbal behavior of the talker in predictable ways. Thus we reach the position proposed initially in this chapter: to provide an analysis of meaning that is scientifically realistic and adequate to the great complexities of psycholinguistics, the psychologist must learn how these many psychological dimensions influence the statistical parameters that are used to describe verbal behavior. This is a forbidding task and one that psychologists have only begun to understand, let alone to solve.

Two further theories of meaning deserve mention: Morris' dispositional theory and Osgood's mediation theory. Both of these include the notion of reinforcement, thus covering much of the same ground that Skinner does, but both attempt to define more explicitly what processes might be going on inside the organism that could provide intervening links between object and symbol.

According to Morris (1946), a symbol is a preparatory stimulus that produces a disposition to respond in a way that would be appropriate if the object itself were present. The crucial difference between this and a simple substitution theory lies in the term "disposition"; now the consequence of the symbol becomes, not immediate action, but rather a disposition to act as if the object itself were at hand. The action need not, in Morris' scheme, actually appear in overt behavior. The disposition serves somewhat to decouple object behavior from symbol behavior and so avoids the major criticism of a simple substitution theory. How successful this dodge can be depends, of course, on how well the intervening disposition to respond can be defined and tested. Morris has no desire to let dispositions be as vague and mentalistic as ideas, which they otherwise resemble, but a disposition is not an easy thing to define in materialistic terms. He suggests that a test of a disposition is to provide suitable supporting conditions and to see whether under these conditions the response that the person is presumably disposed to make does in fact occur.

Osgood (1953) has criticized Morris' dispositional theory on the grounds that it does not exclude certain unlearned, instinctive dispositions, and that it does not provide sufficient decoupling between symbol-produced and object-produced behavior. The first defect (if indeed it is a defect) is easily remedied, but the second requires a more explicit development of the concept of a disposition. Osgood's proposal runs as follows: An object initially elicits certain kinds of behavior. Another pattern of stimulation comes, under appropriate conditions of reinforcement, to elicit some fractional but distinctive part of the behavior initially elicited by the object. This fractional part, which Osgood calls a representational mediation process, may or may not be an actual muscular or glandular reaction; it may be confined entirely to the central nervous system. This fractional reaction, the representational mediation process, in turn provides self-stimulation which mediates the eventual overt reaction to the symbol. Whereas Morris retained the similarity between symbol-produced and disposition-produced behavior, Osgood makes behavior toward the symbol functionally independent of behavior toward the object symbolized. This independence is achieved by introducing an additional step; the fraction of object-produced behavior that the symbol elicits is not the final response but rather leads on to the final overt response that is made to the symbol.

For Osgood, therefore, the representational mediation process *is* the meaning of the symbol. Once a person begins to accumulate his store of representational mediation processes, these can in turn combine to provide other representational mediation processes for other signs (or assigns, as Osgood calls them). The ways in which such combinations are formed are poorly understood, but some combining and generalizing processes are obviously necessary to account for our complex patterns of intraverbal relations.

This catalog of semantic theories is not complete, but it serves to illustrate the complexity of meaning and the variety of interpretations that can be put upon it. The theories range from primitive, uncritical assumptions to highly elaborate applications of the current principles of behavior theory. At first blush it would seem that meaning could be defined in terms of a symbol and an object symbolized. Then it becomes obvious that some process must be introduced to relate symbol to object. This mediating process is learned, so its character must be set by the same laws that govern all learning. Next we discover that the mediating processes influence one another and the theory must be expanded to account for that fact. The occurrence of some mediating processes rather than others is supported by the speaker's motivation and by the reactions of his audience, and is molded by his perception of his current situation. Thus it becomes clear that the mediating process that

serves to link symbol to object is subject to pressures from a whole matrix of psychological factors The only way that this matrix can be unraveled and understood is by varying these psychological factors and observing their effects on linguistic behavior.

While the task of controlling verbal behavior certainly includes all that has been traditionally required of the psychologist by way of an account of meaning, it also implies much more. Not only must the talker's behavior be examined for its meaning, but the listener's perceptions of vocal behavior are also subject to the control of motivational, environmental, and historical variables Furthermore, the psychologist is under obligation to consider the consequences of language· the personal effects of verbal habits on perception, learning, motivation, and thinking, and the social effects of verbal habits on communication, education, and social control. The scope of psycholinguistics is broad and expanding, and effective scientific efforts to cope with its problems have only just begun.

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CHAPTER 20

Humor and Laughter

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The word "humor" has a variety of meanings, all derived from the original sense of moisture, dampness, fluid It acquired its mental connotations by virtue of the ancient physiological doctrine of the four chief fluids: blood, phlegm, yellow bile, and black bile, the relative predominance of which was for many centuries supposed to determine temperament. The sense in which it is here used, as indicating that quality which produces or mediates the amusing, the comic, the laughable, the ludicrous, the witty, the funny, is a special variety of the more general meaning of temperament, disposition, inclination, mood, etc., although in the English language, at least, it has a special meaning which can boast of a respectable antiquity. This mental quality, together with its manifestation through laughter — defined in the Oxford English Dictionary as "the combination of bodily phenomenon (spasmodic utterance of inarticulate sounds, facial distortion, shaking of the sides, etc) which forms the instinctive expression of mirth or the sense of something ludicrous" — has always been of interest to philosophers and psychologists, who have speculated long upon its causes, its nature, and its function, and have endeavored to describe and classify the situations and the mental states with which it is associated.

In the present century the experimental method has been used in the course of this endeavor and has thrown considerable light upon many aspects of humor and laughter, although it has done little towards explaining the ultimate nature of the phenomena concerned. Experimentation (insofar as it is more than systematic observation) has generally taken the form of the presentation of "humorous" stimuli, auditory or visual, the subject being asked to rank the items in order of funniness or to give them marks in accordance with a predetermined scale. Several "tests" of humor have been devised and applied for this purpose, and the results have sometimes been subjected to more or less elaborate statistical treatment. As a variation, children or adults have been asked to report or record humorous experiences, to draw "something funny," to supply humorous captions to pictures, etc. In what follows the results of experimentation will, so far as possible, be considered in relation to various headings emerging principally from the more systematic or *a priori* considerations to be found in the general literature bearing on the subject.

OCCASIONS OF LAUGHTER

This literature is very extensive and the many authors who have contributed to it have suggested a large number of qualities as characteristic of humor. Thus Piddington (1933), in his useful appendix, summarizes the views of some 57 authors from Plato onwards, while Ghosh (1939) gives in tabular form a list of 16 characteristics of the humorous as emerging from the writings of 52 authors. A general feature of the literature is that few authors are satisfied with the formulations of their predecessors. Where so many eminent minds have failed to agree, it would be presumptuous to suppose that any satisfactory explanation or classification of the causes and nature of humor can be easily achieved. Nevertheless, the need for attempting to obtain some kind of order or unity out of apparent chaos is one that is constantly and inevitably felt. Indeed, upon closer inspection, it is evident that the disagreement is not really so great as might at first appear, the same factors being mentioned time after time by successive authors, although often under different names and with varying emphasis

Thus laughter is associated with certain physiological stimulations, especially that of tickling, it is a general concomitant of euphoria; both laughter and humor imply a certain kind of playfulness or absence of immediate biological urgency, they are of social significance and are themselves greatly influenced by the immediate social environment and by cultural conditions generally; they involve an element of surprise and of the unexpected; they are connected with sudden relief or relaxation, in which there is a quick transition from a more

serious to a less serious and more playful attitude, they are associated with certain emotional or instinctive tendencies, more especially those related to fear, sex, aggression, and the sense of triumph or superiority; while on the more intellectual side they involve an element of incongruity as manifested in the juxtaposition of things, situations, or meanings which are not usually experienced together. These and other considerations are constantly advanced, separately or in various combinations, although there is considerable divergence of opinion as to their relative importance and the nature of their interrelations.

It is admittedly difficult to discover the operation of one guiding principle in all these various categories. Of the modern authors who have treated the subject, some are cautiously content to state a number of conditions under which laughter can occur, without committing themselves to any final classification or any statement of order of importance. Others more boldly attempt to reduce them all to one final category by pointing to some single factor which, they suggest, is always present, however varying may be the conditions in all other respects. Thus, as a representative of the first group, Valentine (1942), in his study based on systematic personal observations as well as on a survey of the literature, finds no less than 15 different situations which elicit laughter in young children, for all of which analogues can — at least occasionally — be found in adult life These are: (1) expression of delight, (2) response to the laughter or smile of another, (3) sight of a bright or pleasing object, (4) tickling or jogging, (5) mild shock or surprise, (6) repetition, as in the peep-bo game, (7) the incongruous, e.g., the occurrence of something novel in a familiar setting, (8) mere recognition, as of the child's own name or the sight of his face in a mirror (this, he admits, is a doubtful category), (9) accomplishment of some new form of activity, (10) teasing (although this may really be covered by the next category), (11) mild discomfiture of another, (12) laughter in the course of social play, (13) laughter to make another laugh, especially after doing something naughty, (14) incongruity in words or ideas, as in puns, (15) laughter at mere coincidences. In his eventual summing up, these 15 categories are reduced to 7; nevertheless Valentine maintains that "no single explanation is adequate."

At the opposite extreme we find such a writer as Ludovici (1932), who stoutly defends Thomas Hobbes' famous description of laughter as "sudden glory arising from some eminency in ourselves by comparison with the infirmity of others or with our own formerly." He rephrases it, following Wrench (1908), as "the expression of superior adaptation," and then endeavors ingeniously to show no less than 36 different examples of occasions liable to produce laughter (including two negative examples in which, rather paradoxically at first sight, we do not laugh. These are chosen from the most varied fields, from the inhalation of nitrous oxide, through tickling, high spirits, aggression, indecency, and embarrassment, to mimicry, disguises, incongruities, and puns, all of which ultimately involve "superior adaptation" (or, in the case of the negative examples, do not involve it).

COGNITIVE, CONATIVE, AND AFFECTIVE ASPECTS

Another method of dealing with the somewhat bewildering variety of situations which can arouse laughter is to set out not so much from the occasions and stimuli involved, but rather from the general nature of the mental processes at work. This is the approach adopted by Eysenck (1947), who uses for this purpose the classical and well-tried division of mental states and processes into cognitive, conative, and affective classes. As is well recognized, any given state or process usually involves elements of all three classes, although their relative predominance may vary greatly from one case to another. The same holds true of jokes and the mental concomitants of laughter generally. According to this view, which will be adopted in this chapter as a convenient working model, in classifying or analyzing jokes or ludicrous situations and in dealing with the problems of humor generally, we should endeavor to describe the cognitive, conative, and affective aspects of the mental processes at work. The numerous theories of laughter which are to be found in the literature can also, Eysenck thinks, be classified according to whether the authors stress the cognitive, conative, or affective elements involved in humor. In the first class of those who emphasize *cognition* are, he suggests, to be found such names as Cicero, Quintilian, Dryden, Locke, Beattie, Kant, Schopenhauer, Spencer, Lipps, Sidis, Renouvier and Prat, Willmann — and many others. In the *conative* class we find notable examples in Plato, Aristotle, Hobbes, Hegel, Bain, Bergson, Kimmins, and Ludovici. The *affective* aspect of humor and laughter is stressed by those who have directed attention to their emotional components. Among these we find, for instance, Descartes, Hartley, Hōffding, and McDougall.

Any such classification is, of course, a little arbitrary, since in many cases judgments as to an author's emphasis may vary. Eysenck himself admits that the theories of some authors (he mentions in particular Ribot, Sully, and Santayana) have recognized at least two of the aspects of humor, while he suggests that Freud, in his distinction between the comic, wit, and humor, has recognized all three. As regards both theories and individual jokes or ludicrous situations, moreover, the classification is a purely formal one, it has no relation to the content of the thoughts or the nature of the emotions, feelings, or conative tendencies involved. In this it differs from most other theories or descriptions, which aim at telling us the content or intimate nature of the mental states concerned. Nevertheless, its very unambitiousness in this respect is in some ways an advantage for a preliminary approach, since it clearly implies that in any given case the details have yet to be filled in; while its reminder that all three of the classic elements of mind are likely to be involved is calculated to save us from hasty and misleading oversimplifications. Again, as Eysenck suggests, it enables us, if we so desire, to make at least a provisional distinction (somewhat along Freudian lines) between such categories as the comic, the witty, and the humorous, these corresponding to a predominance of cognitive, conative, and affective elements respectively He illustrates his views by a diagram in the form of an isosceles triangle, the three angles of which represent respectively cognition, conation, and affection, the (short) base line of the triangle running from conation to affection and thus indicating that these "orectic" aspects are nearer to each other (and thus less easy to distinguish) than is either of them to cognition. Any given "joke" can be regarded as situated somewhere within the area of the triangle, the relative importance of its cognitive, conative, and affective elements being indicated by its position in relation to the three angles.

Thus duly warned of the complexity of the mental processes involved in humor, we can set out upon a more detailed study of the different situations and aspects of laughter and the ludicrous. Inasmuch as the simpler forms, as they occur in young children and possibly in apes, can only be observed behavioristically, we shall begin with examples in which orexis appears to be most prominent, leaving till later those cases in which cognitive elements seem to play the most important part.

Feeling

LAUGHTER AND SMILING

Laughter is predominantly a human action, although such competent observers as Darwin (1899) and Yerkes (1925) have little hesitation in attributing it to the anthropoid apes, and the latter author reports "pronounced laughter" in a pet chimpanzee. Laughter is almost universally considered as allied to smiling, although McDougall (1923) is a distinguished dissentient from this view. His objection, however, seems to be largely determined by his own theory of laughter as a method of dealing with distressful situations, and seems hardly applicable to the earliest and most primitive forms of laughter, although in the course of his considerations he draws attention to the aesthetically interesting fact that smiling is beautiful, whereas laughter is ugly. Both smiling and laughter appear in human infants at an early age, and all observers seem to agree that developmentally the smile precedes the laugh. The actual dates after birth in which either was first noticed vary considerably from one observer to another, partly because both forms of expression develop gradually and observers probably differ in their criteria of what constitutes a smile or laugh, and partly because, as Valentine justly remarks, some infants are more prone to smile and laugh than others. Those who smile early, however, also tend to laugh early, the correlation between order of development being, according to Washburn (1929), about .80, while Ding and Jersild (1932) found that the preschool children who are frequent smilers are also frequent laughers. The date of the first recorded smile varies from one week to two or three months, that of the first laugh from about three weeks to six months or more.

The occasions of smiling and laughter seem to be much the same and are similar in apes and humans. With apes, feeding, tickling, caressing, the appearance of a loved person, and reconciliation after a quarrel with the keeper were noted by Darwin, who also found that the presentation of food, caressing, the presentation of bright colors, and the sound of music would produce similar reactions in human idiots, whom he chose as being insusceptible to the higher forms of humor. We have already enumerated the situations found by Valentine to elicit laughter in young children, and very similar results have been recorded by others. According to Piret (1940) the main comic themes

are appreciated by 75 percent of children between the 4th and 6th year. A number of researches make it plain, however, that there is an order in the development of these themes. Thus Laing (1939) found that the unusual arouses laughter earlier than the discomfiture of others, and that both precede anything which might be called "wit," which in turn is, in its early stages, visual rather than verbal. Wells (1934), dealing with children's taste in humorous literature, found, somewhat similarly, that the developmental order could be described as "absurdity," "slapstick," "satire," "whimsy." From the data available it would appear that from an early age laughter occurs most in social situations, although there have been no serious attempts, so far as the present writer is aware, to employ the techniques necessary to discover how often children laugh when by themselves. Laughter, like other signs of feeling and emotion, is undoubtedly infectious — by virtue probably of what McDougall has called "primitive passive sympathy," whereby we react to the signs of emotion in others by the arousal of a similar emotion in ourselves. In the case of laughter and fear, at least, this mechanism is manifested at an early age. Nevertheless, it has been adequately shown that very young children will sometimes smile or laugh both at non-human occurrences and at the sight of a human face (their own or someone else's) that is not laughing or smiling. There is, in general, good ground for believing that laughter and smiling, in spite of their important social role, are at bottom biologically rather than socially determined. Many authors, such as McDougall (1923), Drever (1917), Eastman (1921), Kimmins (1928), and McComas (1923) are inclined to consider that laughter, at any rate, should be regarded as a manifestation of human instinct.

PLEASURE, WELL-BEING, AND SURPLUS ENERGY

Primitive laughter and smiling express contentment, pleasure, joy; of this there can be no doubt, whatever qualifications we may later have to add when we come to more sophisticated cases. As one author has put it, "the happy dog wags his tail, the happy human wags his jaw", and this holds true whether the satisfaction is due to a general state of euphoria or to the effect of some special pleasing stimulus or situation (social or otherwise). Indeed, the two are not always easy to distinguish, since a generally euphoric state tends to make us welcome many stimuli or situations which in another mood might be indifferent or unpleasant. Darwin remarked that in apes the expressions of pleasure and affection are often indistinguishable. Much the same is true of humans, and this is not astonishing, since when we love a person we derive pleasure from that person's presence.

But when we ask why pleasure should express itself in smiling and laughing, we are on more difficult ground Spencer (1860) was one of the first to state clearly the theory of surplus energy. Pleasure — or at least some sorts of pleasure, for we are not concerned here with the pleasures of repose — is admittedly dynamogenic (there is, of course, now ample experimental evidence for this, if it is needed), and the energy thus created seeks an outlet. Spencer suggests that in humans "it is through the organs of speech that feeling passes into movement with the greatest frequency" (1891, p. 459). Furthermore, "the class of muscles which, next after those of articulation, are most constantly set in action by feelings of all kinds, are those of respiration" (1891, p. 459) The interaction of these two most viable channels brings it about that the surplus energy produced by a joyous state shall find an outlet in the vocal-respiratory phenomena of laughter. Darwin followed by stressing the general tendency to vocal utterance in emotional states in man and many animals, although he admitted that "why the sounds which man utters when he is pleased have the peculiar reiterated character of laughter, we do not know" (1899, p. 205), only suggesting that (in accordance with his general principle of antithesis) they should be as different as possible from screams or cries of distress. In the latter the expirations are prolonged and the inspirations short or interrupted, so that it is to be expected "that in the sounds uttered from joy the expirations would have been short and broken and the inspirations prolonged, and this is actually the case" (1899, p. 205). The sounds of laughter are, of course, "short and broken," but more exact observation has shown that the inspirations are not prolonged, the inspiration/expiration ratio being actually smaller than in most other investigated conditions except those of singing and continuous speech (Woodworth, 1939, quoting Feleky, 1916), while the "ha-ha" vocalization is generally made at the limit of extreme expiration, the degree of which may exceed that producible by a direct voluntary effort (Lloyd, 1938). On the whole, however, modern research has thrown little light on our problems from the physiological and biological points of view, although several authors have stressed the physiologically beneficial effects of laughter in addition to its psychological value. Thus, ac-

cording to McDougall, "it raises the blood pressure and sends a fuller stream of blood to the head and brain, as we see in the ruddy face of the hearty laugher" (1923, p. 166), while it has even been suggested that it may be "an invention of nature to compensate for the diminution of organic friction and massage consequent upon man's erect position" (Walsh, 1928, as quoted by Diserens and Bonifield, 1930, p. 111).

Curiously enough, the arousal of laughter through tickling, although recognized as a serious problem for any comprehensive theory of laughter, has hardly been the subject of any systematic research. The special sensitivity of certain bodily zones points to a physiological element, on the other hand, the fact that tickling has to be carried out by another person before laughter is produced shows that psychological elements are really predominant. The general view seems to be that tickling is a mild form of aggression carried out in playful mood and that the tickled person laughs as a form of defense suitable to the playful situation. If the attack becomes too serious, laughter gives place to expressions of fear or anger, as Leuba (1941) showed in the case of two young children. Some consider laughter in response to tickling to be the most primitive form of laughter, from which all other kinds have been evolved (as indicated perhaps in the metaphorical use of the phrase "I was "tickled") and Crile (1915), adopting a phylogenetic approach, suggests that it corresponds to a recapitulation of ancestral struggles against the attacks of biting and clawing foes. The occasional use of the term "erotogenic" in relation to the "ticklish" zones indicates a recognition of the sexual element which is often involved and a relation to the erotic giggle associated with sexual aggression in direct or symbolic form (the present writer has observed that young girls after an apparent danger of being run over in a street will often giggle, while men and older women more usually react with signs of fear, anger, or embarrassment). In general, this aspect seems to have been unduly neglected, and the same applies to laughter produced by nitrous oxide or other drugs, except for the statement that these, like alcohol, tend to produce a state of euphoria, probably through the removal of inhibitions.

PLAY AND UNREALISM

The playful element in the tickling situation exemplifies what seems to be a quality of every kind of laughable or humorous situation — one which has been recognized explicitly or implicitly by nearly every writer on the subject. Reviewing the situations which arouse laughter in young children, Piddington (1933) notes: (1) that they are all pleasant and interesting, (2) that they do not call urgently for any specific bodily response. This lack of biological urgency or seriousness is found in every kind of humor. In Freud's terms, humorous situations, like any kind of play, always imply the working of the "pleasure principle" or an absence of the grimmer aspects of "reality." As soon as the situation becomes "serious," laughter ceases (it is, as we say, "no laughing matter") and the corresponding mental state loses its quality of humorousness, the energy which found its outlet in laughter becomes redirected along a more "realistic" and utilitarian channel. The "unrealism" of humor is seen at all levels, from simple hilariousness and "slapstick," through puns, verbal juggling, and "silly" jokes, to those denials of reality which characterize "humor" in the special sense used by Freud and certain other writers. Indeed, it seems clear that one important function of the humorous attitude at all levels is to relieve us from the burden of reality, and that its pleasure depends, at least to a considerable extent, upon the satisfaction thus derived. It is this relative divorce from reality which tends to make humor follow the laws of the "primary" rather than those of the "secondary" process and which makes its workings similar in so many ways (including resort to such mechanisms as displacement, condensation, overdetermination, etc.) to the workings of the unconscious as manifested, for instance, in dreams and neurotic symptoms — as Freud (1916) first pointed out in his classic contribution to the subject Moreover, since play and unrealism are especially characteristic of young and immature minds, there is always something childlike about humor (even when it manifests a mature or erudite sophistication); hence in adults it often seems to involve a process of temporary regression to a stage of mental development which in more serious preoccupations has been superseded. But, unlike dreams and neurotic symptoms, it remains under the control of volition, the conscious ego has not been overcome or by-passed, rather it permits itself a relaxation from the stern pressure of reality. Hence the essential "normality" and healthiness of humor —a point which has been stressed by several psychoanalytic writers, and which is in harmony with the experimental findings of Loos (1951) that those judged to possess a sense of humor rank low on a "neuroticism" measure.

This playfulness or unrealism serves as a

constant background upon which the special characteristics of different forms of humor or of particular kinds of jokes are, as it were, superimposed. It may sometimes be "natural" or spontaneous, sometimes it is, as we might say, forced, compensatory, or escapist. But it is always there.

Conation

RELIEF AND RELEASE OF ENERGY

Just as some authors have stressed the more general process of release of surplus energy in euphoric conditions, so others have emphasized the role of laughter as a means of releasing energy which has been mobilized to meet some "serious" contingency which, however, had suddenly ceased to exist, either for external reasons or because we have realized that it is not as "serious" as we had thought. In practice, however, the distinction between general and specific release is not always easy, the relief afforded can range from the very specific to the very general Sometimes the "contingency" may be a very definite one relating to some special temporary (perhaps even momentary) situation; at other times there may be a relatively long period of stress or restraint which is suddenly relieved (as when children rush out, laughing and gamboling, from school); on still other occasions there may be temporary relief from long-standing and semipermanent control or inhibitions (as in jokes directed against social conventions or restrictions imposed by political or economic circumstances), while as an extreme case of generality we have the release of energy generated in any happy, carefree mood. Thus it is that even those who stress the release of general euphoric energy usually make some qualification or concession to the factor of more specific release. Spencer, for instance, refers to the importance of what he calls "descending incongruity," as when a situation on a large scale is replaced by one on a much smaller scale, the energy now no longer necessary being discharged in laughter — the type of occasion referred to in the famous phrase *parturiunt montes, nascetur ridiculus mus*

This element of (more or less sudden) relief is a quality of humor which is almost as general as that of playfulness or unrealism to which we have already referred — and indeed it is characteristic of all forms of humor above those of the simplest and most primitive kind. The recognition of this element of release, however, in turn leads to the important question: What is the nature of the mental stresses and emotions that are relieved and find their outlet through humor and laughing? Some writers, as we have already seen in another connection, have attempted an answer in terms of some one predominant, or even exclusive, tendency or emotion. The safer and perhaps more commonsense view, however, is that *any* emotional tendency may be involved — a thesis which has been strongly advocated by Burt (1945), who further suggests that we can distinguish various kinds or nuances of laughter according to the emotion being discharged. Thus, corresponding to anger and pugnacity we have aggressive jokes or sarcastic wit; fear gives rise to humor of the grim type; inferiority to the bashful snigger; sex to the flirtatious giggle or pornographic jest, disgust to jests of the Rabelaisian and scatological variety.

As this description indicates, humor has a special character according to the emotion it releases, and performs in each case a somewhat different psychological and social function. The examination of the emotional varieties of humor and laughter is therefore by no means unimportant, even though some authors may have overstressed the relative significance of those in which they are particularly interested.

SUPERIORITY AND AGGRESSION

Superiority, as has been mentioned, received a classical statement by Hobbes and has been persuasively and ingeniously defended as the sole essential mental concomitant of laughter by Ludovici. It is not surprising, therefore, that the latter author stresses the existence of a sinister element in laughter and is inclined to be suspicious of the supposed social value which has been attributed to it by so many others, a suspicion which is increased by the possible ill effects of the lack of seriousness and general unrealism of laughter. Ludovici also admits that many cases of laughter express superiority only as an attempted compensation for feared inferiority, as when in self-defense we laugh when we find ourselves in a ridiculous or humiliating situation.

Ludovici and others also recognize the close affinity of superiority and aggression — as when, in Ludovici's phrase, we "show teeth," not to indicate our pleasure or friendliness, but as a symbolic vestige of a more general attitude of attack. This apparently ambivalent aspect of the smile is a subject which in recent years has hardly received the treatment it deserves. Darwin drew attention to the different positions

of the lips in smiling and sneering, and also to the general differences of bodily posture in friendliness and hostility (of which — in accordance with the general experimentally ascertained principles of interpreting emotional expression — we doubtless make considerable use in distinguishing between the friendly smile and hostile sneer). Psychoanalytic views on the ambivalence of the early "oral" stages of development, especially the "biting" stage, have also an obvious relevance. Indeed, several modern authors have followed Freud in finding the origins of smiling and laughing in the feeding situation, whether in sucking itself (Winterstein, 1934) or, more phylogenetically, in the situation where the hunting beast has prey at its mercy and is prepared to devour (Kallen, 1911, Augier, 1920). Such views merge gradually into theories which stress more general situations of victory or superiority, as in that of Rapp (1949), who suggests that all forms of humor are ultimately derived from a prototypic "laughter of triumph in a primitive physical duel."

There is wide agreement that, particularly in the spheres of superiority and aggression, humor and laughter tend to undergo a process of refinement in the course of social development. Some have spoken of the "humanization" of laughter, which they suggest is detectable in successive theories through the centuries as well as in the laughter-evoking situations themselves. The primitive and uncultured may laugh at the physical deformities or major disasters of others, while college professors will reserve laughter of this kind for crudities and misfortunes of a psychological nature, such as those displayed in examination "howlers." Even these, however, are apt to be deemed superior if they reveal not so much the candidate's ignorance (which would appeal simply to the "superior adaptation" of the examiner) as his "innocence" in unwittingly committing a *double entendre* which appeals to one of the other tendencies liable to be released by humor, especially the sexual one — as in the case of a candidate in an examination in psychology who ended his criticism of a certain psychologist's allegedly superficial methods of testing with the words: "In short, 10,000 children in a year are far too many for a single man, and 5 minutes are not enough to ensure adequate work for any individual child." The subtler forms of aggressive humor may also be overdetermined in such a way that the overt aggressor reveals an underlying sympathy with his victim, so that both can direct a common aggression against a third party, as in the story originally told (so far as I am aware) in connection with Kaiser Wilhelm II, but recently, I believe, resuscitated in the U.S.S.R. in connection with Stalin. In its original form it ran: A foreigner in a street in Berlin, conversing rather loudly with a friend, was heard to exclaim "This damned fool of an emperor," thus committing the crime of *lèse majesté*. A policeman arrested him, whereupon the foreigner protested that he was of course not referring to the German emperor. "That's no use," replied the policeman, "there's only one damned fool of an emperor, and that's ours." Aggression, however, may appear justified if it is done in retaliation, as in the story of the clergyman who attacked an antislavery orator, saying "You are an abolitionist, aren't you? You want to free the slaves." "Yes." "Well, why don't you go to Kentucky?" To which the abolitionist replied, "You are a preacher, aren't you? You want to save souls from hell." "Of course." "Well, why don't you go there?"

And this may serve to remind us that misfortunes brought about by impersonal forces can also arouse apparently justified aggressive laughter if they appear to contain an element of nemesis, to have been deserved by the sufferer. Thus, in an incident reported by Ghosh, a passenger on the top of an omnibus lost his hat on a windy day at the seaside. The hat in its flight paused for a moment close to a man and woman walking on the promenade, but they made no effort to retrieve it, perhaps because the owner of the hat was a colored man. The missing article having been eventually recovered, a further gust of wind blew away the woman's hat and carried it into the sea. Those who had witnessed the whole incident were convulsed with laughter at what they no doubt felt was a just retribution (all the more so because it followed the deep psychological principle of *talion* punishment). Those who had seen only the latter part of the incident did not laugh, any tendency thereto being no doubt restrained by politeness or by sympathy. A less obvious and momentary sense of nemesis is probably present in many cases where some minor disaster, such as a fall or the loss of a hat, happens to an apparently prosperous or important (or, above all, pompous) person. Some dormant sense of envy or hostility probably finds a sudden release in the disaster, while the absence of such feelings in relation to humbler or less pretentious people helps to bring it about that we experience less temptation to laugh when they encounter any similar mishap. Much the same occurs in relation to solemn occasions or situations, such as ceremonies, church services, or funerals. These are no doubt examples

of the perilous nearness of the sublime to the ridiculous, although most of these can no longer be accounted for in terms of the mere liberation of aggression.

SYMPATHY AND SORROW

The last illustration we gave brings us close to the problem of the relation between humor and sympathy. McDougall (1923), in whose system of psychology the tender emotion plays an important part, has suggested that laughter is a biological device for protecting us against the excessive pity and sympathy to which we should otherwise be exposed because of the capacity for tender emotion and for realizing and sympathizing with the misfortunes of others. It saves us from being unduly depressed by the minor sufferings which as social beings we see constantly around us and of which we have to bear a share ourselves. Laughter is thus what the psychoanalysts would term a "reaction-formation" It is a response to pain rather than to pleasure and (as already noted) is, according to this view, to be clearly differentiated from the smile, which is a response to pleasure. It has a compensatory function of much the same kind as that recognized by many other writers in cases where we laugh on finding ourselves in a humiliating or embarrassing position. Up to a certain point McDougall would no doubt agree with Ludovici in explaining the laughter of a fashionably dressed young lady who fell and covered herself with mud in the street (one of the latter's 36 examples) by regarding it as an attempt to express "superior adaptation" in a situation of misfortune, but would lay greater emphasis on the background of distress (if she had not laughed, she would have wept or cursed). He would also emphasize far more than most other writers the role of laughter as a protection against sympathetic suffering at the misfortunes of others as well as of ourselves

The statements of some eminent humorists could be regarded as testifying to the general truth (though not necessarily the exclusive truth) of McDougall's view. Thus Charlie Chaplin is reported to have said that "people are often really sympathetic with me when they laugh; the minute a thing is overtragic, it is funny" (which seems to imply that, exactly in McDougall's sense, laughter comes in to protect us from an overdose of tragedy). Similarly, but with the accent on the opposite transition (from laughter to sympathy) Walt Disney said: "People often sympathize when they laugh. Sometimes little children sympathize too much and have to shut their eyes during a cruel scene" (quoted from Ghosh, 1939). Indeed both Chaplin's and Disney's films offer interesting material for the study of the narrow and fluctuating borderline betwen sympathy and laughter. On its first showing in London "The Gold Rush" elicited such vociferous laughter in the audience that an enterprising cinema had the sound conveyed by loudspeaker to the street, as though to entice the passer-by to come in and join in the merriment. When shown again after an interval of a good many years (including those of World War II) the laughter was much more restrained and the element of pathos much more strongly felt. As a very large proportion of the audience must have been seeing the film for the first time, the reason for this change in attitude can hardly have lain merely in the element of repetition. Had the humor grown "old fashioned," was there some general change in emotional climate due perhaps to a lesser general optimism about world affairs or to a greater readiness for the arousal of sympathetic emotions (London had, of course, suffered prolonged bombardment from the air as well as its share of the more general anxieties and horrors of the war), or had the appearance in the interval of several more "serious" Chaplin films altered the attitude toward his productions? These are problems of a kind that might repay investigation. As regards Disney, we find laughter evoked by a series of intensely "cruel" and sadistic happenings that would in ordinary circumstances evoke horror and sympathy, but which become tolerable by the cartoon technique adopted, which makes us realize that we are not really witnessing the sufferings of living creatures and that the situation is playful (as in the sadism of puppet shows of the Punch and Judy type). Moreover, the behavior of the characters themselves is such as to reassure us almost instantly that they have not come to any serious hurt.

What we have called "the narrow and fluctuating borderline" between sympathy and laughter is well calculated to make us realize that the "relief" of emotional tension obtained through laughter does not depend always, or indeed principally, upon any change in the external situation, but largely upon our own attitude. Sometimes, it is true, the external factor may be predominant, as when we think for a moment that the situation is threatening or serious and then realize that it is not. This is exemplified in the apparent disasters which befall Walt Disney's animals, in many aggressive games of children, as when they leap from hiding, crying "Bo!" (perhaps the prototype of all practical jokes, which are nearly all ag-

gressive and some of them only relatively harmless), or in the case of the giggling girls who thought for a moment that they might be run over. In many verbal jokes, moreover, the relief is provided by the wording itself, which makes it appear that the situation described is less "serious" than it at first seemed. In many other cases, however, the external situation remains serious. After she had fallen in the street the lady's clothes remained spoiled and muddied, and it is only through her own attitude that she is able apparently to make light of the disaster. The same is true of many other situations in which the element of tragedy, humiliation, and "seriousness" remains, but which we are able protectively (and perhaps only temporarily) to keep at bay by laughing. If we are unable or unwilling to adopt this relatively playful "mechanism of defence," we remain impressed by the seriousness of the situation and "we are not amused."

FEAR

The laughter reactions to fear and anxiety in various situations reveal the importance of both the internal and the external factors to which we have just referred. As is well recognized, we may not only whistle but laugh to keep our courage up, while on the other hand we may also laugh when we have narrowly escaped some serious danger. Soldiers have been reported to have indulged in loud (and, as it might appear, unseemly) laughter when a shell has exploded near them, killing several of their comrades. An elderly lady (the neighbor of a friend of mine) after a narrow escape from a bomb explosion which had destroyed the next door house, ran out and danced in the street, shouting between repeated bursts of laughter, "We're in the front line now, we're in the front line now!"

ANXIETY AND GENERAL DISTRESS

Anxiety, as distinct from acute fear, plays an important part in many distressful situations (other than those where there is grief over some irretrievable loss, although even here there may be an element of anxiety as to how life can be continued without the lost object). It provides therefore quite a suitable means of transition to the consideration of conditions of more general and diffused unhappiness, disillusion, disappointment, and depression in their relation to humor. It is with regard to such situations that Freud (1928) — 23 years after the first appearance of his book on wit — put forward his theory of "humor" (in a narrower and more special sense than that employed here). This theory makes use of the doctrine of the superego, which had, of course, not been formulated at the time of the book In humor, it is suggested, the ego adopts the point of view of the superego and from this more exalted standpoint can look down upon the ego's normal anxieties and embarrassments with a certain lofty and stoic detachment. To illustrate his meaning Freud takes a well-known and "crude" example of what has sometimes been called "gallows humor," the case of the criminal who, when being taken to execution on a Monday observes "Well, this is a fine beginning to the week." As a further example we may take that quoted by Willmann (1940) of the criminal who on a similar occasion was asked "Isn't there anything you'd like to say before they pull the rope?" and who replies, "Yes, tell the judge maybe he done a good thing after all; this is gonna be a mighty good lesson to me" Still another illustration, dealing with a different but hardly less dangerous predicament, is that of the sailor from a torpedoed vessel who, perched precariously on a piece of wreckage in mid-ocean, hails a passing ship with the words "Hi, are you fellows going my way?" In all three cases there is an obvious denial of reality; the seriousness of the situation is ignored and the words imply that things are much as usual — above all, that there is no threat of the imminent extinction of the speaker's life. Nevertheless, this denial of reality in humor has, in Freud's words, "something fine and elevating," which is lacking in wit and the comic, and this ennobling element, it is suggested, is due to the role played by the superego in humor. It is indeed, as the present writer among others has elsewhere endeavored to show, a role which it may play also in other quite different situations, such as romantic love or religious ecstasy, where there occurs something in the nature of a fusion between the ego and the superego. But the role of the superego is in all these cases a kindly one, enabling the ego to become purged of guilt and conflict. In humor it treats the ego rather as a benevolent adult might console a child in the minor catastrophes which loom so large in early life but which take on less formidable proportions in the light of more mature experience. It is, to quote Freud again, as though the superego said "Look here! This is all that this seemingly dangerous world amounts to — child's play — the very thing to jest about!" (1928, p. 5). The superego reveals therefore a different aspect of itself from that depicted in *The Ego and the Id* published five years earlier, and in its encouraging and permissive role,

allowing and even approving of a regression to a childish and primitive denial (or at least revaluation) of reality, is in certain respects — though not in all — more allied to the ego ideal described in Freud's earlier article on Narcissism (1914). In this connection Freud himself admits that this interpretation of humor "teaches us that we have still very much to learn about the nature of (the superego)" (1928, p. 5) — an admission which still has much truth even today. However, even those who have doubts about the adequacy of Freud's view of humor would probably agree with his statement that "by its repudiation of the possibility of suffering, it takes its place in the great series of methods devised by the mind of man for evading the compulsion to suffer — a series which begins with neurosis and delusions, and includes intoxication, self-induced states of abstraction and ecstasy" (1928, p. 3) and further, that it is distinguished from many other members of the series by "a peculiarly liberating and elevating effect" (1928, p. 5), a certain sanity and dignity.

INTRO- AND EXTRAPUNITIVE ELEMENTS IN HUMOR

The type of case considered here by Freud merges gradually into other cases where the resignation or denial of reality is less "elevating" and where we can detect a greater element of aggressiveness, directed either against the self or against the outer world. In terms of Freud's interpretation, we would suggest that the superego is here less kindly and more imbued with the aggressiveness that shows itself in fierce self-punishment or in the intolerant moral condemnation or persecution of others. An interesting study of such cases has been made by Reik (1929a) in his essay on Jewish wit. A predominant characteristic of such wit is that in so many cases it is directed against the Jews themselves, either as individuals or as a race. To some extent, no doubt, this represents a genuine humorous appreciation of Jewish foibles and deficiencies, the superego, as it were, inviting the ego in a critical but not unkindly manner to contemplate the shortcomings associated with the Jewish attitude and way of life. But underneath this there is often to be detected a fierce aggressiveness against the self, which in turn conceals an aggressiveness against the Gentile world, that world which at bottom is held responsible for the typical deficiencies that Jewish wit seems to recognize and to deplore. It is as though in these jokes the Jews said, "Look what miserable, weak, uncouth, narrow-minded, and miserly creatures you have made of us!" In criticizing themselves they are really criticizing their enemies and oppressors, much as the self-criticism of the melancholiac is (as Freud discovered) directed not so much against himself as against an introjected object that he hates. The psychical mechanism is, Reik suggests, well indicated in the joke in which the Jewish cardplayer abuses his partner. "What sort of a fellow are you to sit down to play cards with the sort of fellow who sits down to play cards with a fellow like you?" If, as we first expect, the joke ended with the words "to play cards with a fellow like me," it would merely indicate self-depreciation of such intensity as to irradiate on to those who deigned to play a game with him, unworthy creature that he is. But the tail of the joke contains its sting and, like a boomerang, the aggression returns against the other player, who is, as it were, made responsible for the joker's deficiencies. If the general tendency to self-criticism revealed in such jokes indicates an attitude allied to that at work in melancholia, inasmuch as the criticism is really directed against an introjected hostile object, the pleasure momentarily afforded by the joke is, at its deepest level, reminiscent of the pleasure of mania, as it is derived from the achievement of a sudden freedom from this hostile introjected object which has so long been a burden and has been responsible for so much guilt and self-directed aggression. It represents a triumph over the oppressor, both as an outer object and as introjected.

But the aggression in such jokes need not be confined to human enemies; it can also on occasion be directed against what is perhaps the greatest tyrant and oppressor of all — the Jewish God himself. This is illustrated by the story of the old Jew who said on his deathbed: "Children, all my life I've slaved and saved and haven't allowed myself the slightest bit of fun. I've always said to myself that it'll all be made good in the world beyond. Now I shall really laugh if I find there's nothing there either." As in the previous example, beneath a more superficial element of self-criticism, in which the dying man begins to manifest a doubt as to the wisdom of his abstemious and hardworking mode of life, there appears a note of hostile skepticism about his religion and his God, who may have fooled His worshippers by promises that would never be fulfilled. Here we have an aggressive attitude (albeit slightly concealed) against an authoritarian figure, which contrasts rather strikingly with what we might call the "forgiving" attitude of the criminal towards his judge in the second of our two examples of

"gallows humor" given above. In this latter it is implied that previous aggressive tendencies have been abandoned and that the judge is now absolved from blame, whereas in the dying Jew revolt and aggression are beginning to manifest themselves for the first time. Reik indeed sees in this kind of contrast the essential difference between (aggressive) tendentious wit and humor in the more "elevating" Freudian sense.

One step further in the direction indicated by the last joke and we should have a quite openly skeptical attitude towards religion and those who believe in it, combined perhaps with an open attribution of an attitude of cynical humor to the Almighty himself, a fine example of which is to be found in Bertrand Russell's essay on "A free man's worship" (1918). Here God appears as a sadistic humorist considerably diverted by the behavior of men who, though tormented by Him in a great variety of ways, far from expressing indignation at their cruel treatment, continue to worship and praise Him and to regard Him as the very essence of Goodness. Tired at length by the amusing spectacle, He rings down the curtain on the human tragicomedy, remarking as He does so, "It was a good play. I will have it performed again."

SEX AND OBSCENITY

Turning now to the two last important tendencies which frequently find relief in humor, the sexual and scatological varieties, the relief involved usually takes the form of a relaxation of the more or less constant taboos imposed by society and internalized in the individual mind. The relief has a peculiar character of "naughtiness" (note the regression to childhood implied in this term) absent from most other categories, the pleasure being more obviously connected with the infringement of a taboo than, for instance, in the case of aggression (corresponding no doubt ultimately to a difference in the social taboos themselves, as shown, for example, by the fact that the censorship on expressions of aggression in films is far less severe than that on the expression of sex). The social element involved is therefore often of the kind that has been described as "seduction," the hearer of the joke being, as it were, invited to participate in the "naughtiness." Hence sexual jokes are most often made before those of a comparable age and status, as they are most liable to succumb to the seduction. This attitude differs from that found in many (though by no means all) other cases. In aggressive humor the hearer may be asked to participate in the aggression (as to some extent in the *lèse majesté* joke to which we referred), although in other cases the relief is independent of this attitude In many cases it may indeed be the difference between the joker and the hearer which is emphasized — corresponding to the relation of "superior" to inferior. This of course does not imply that a clear differentiation can always be made between the sexual or scatological and the aggressive elements in humor. Terms of abuse abound in scatological and sexual epithets and such epithets may sometimes seem humorous to third parties. A similar admixture may, of course, be found in many jokes and witticisms, especially perhaps those which involve an element of retaliation. In the lavatory of a well-known Oxford college there appeared one day the lines:

"I don't like the rears in ——— at all,
The seats are too high and the holes are too small."

Next day there appeared below in another hand:

"Sir, to the above you incur the retort
That your arse is too large and your legs are too short."

In the sexual sphere we have a corresponding example of retaliation in the case of the upper-class strikebreaker who, while driving a lorry during the general strike in England in 1926, was addressed by an irate middle-aged working-class woman as "You bastard!," whereupon the driver replied "Hullo, mother, what a nice surprise to see you here!"

A speciality of sexual jokes is the frequent use of symbolism of the same general kind as that found in dreams, although with the important difference that the symbolism is almost invariably understood by the joker and is expected to be understood by the hearer. Indeed it has fallen to my lot to hear a learned audience protest at the "far-fetched" Freudian views on symbolism in a discussion dealing with psychoanalytic findings and then shortly afterwards in the relaxed atmosphere of a smoking room to indulge in jokes the very point of which depended on symbolism of the sort to which Freud and other psychoanalysts had drawn attention. There are, in fact, many jokes which depend entirely on symbolism; without the symbolism they would not be humorous but merely "smutty" or "dirty," while without interpretation of the symbolism they would be merely nonsense (as dreams often seem to be).

THE PROBLEM OF SYMBOLISM IN SEXUAL JOKES

It is clear that in this field the problems of wit are intimately connected with those of symbolism In spite of the difference in comprehensibility, symbolism in humor performs much the same function as in dreams, inasmuch as it conceals or at least veils the tabooed meaning behind a respectable façade, thus enabling it to pass the censor. Indeed, if the symbolism or other indirect allusion is not too transparent and if it is capable of a sufficiently plausible other meaning, the joker need not definitely commit himself and can withdraw behind this other meaning, making the hearer "guilty" of suspecting a tabooed meaning which the joker, in a pretence of innocence, implies that he had not intended. The joker laughs at the embarrassment of the hearer and for having "scored off" him both by leading him astray and by depriving him of the full satisfaction of openly breaking a taboo. The hearer laughs at being relieved of the embarrassment of having to refer to a tabooed act, as well perhaps as to hide the existence of this embarrassment itself; while both laugh at their unavowed understanding of the inner meaning. The "relief" here would seem to be experienced at two levels which are contradictory in tendency At a more superficial level there is relief — and consequent laughter — at not having to deal openly with an embarrassing subject, while at a deeper level the taboo is broken and this very same subject is enjoyed. This is a device which is sometimes used by comedians, as when George Robey, after an allusion which had been understood in a sexual sense by his audience, as indicated by their laughter, would reproach them by the remark "Yes, you would think of that!," while he himself adopted an air of injured innocence. Carrying the process a stage further, we find examples of (usually aggressive) obscenities that are definitely withdrawn, allowing the hearer to assume that he must have misunderstood. This is exemplified by a rather hoary schoolboy joke, in which a boy asks his schoolmaster "Tickle your arse with a feather, Sir?," and while the master is wondering how he shall react to the affront, repeating much the same verbal sounds in the innocent form, "Particularly nasty weather, Sir!"

Although the general function of symbolism in humor is thus similar to that in dreams and myths, there is clearly a quantitative difference, the threshold of comprehensibility in humor being much lower than in other cases. This in itself raises an interesting problem which has hardly yet been satisfactorily solved. Two factors at least seem to be of importance. The first is the element of playfulness or unreality, involved in all humor, which seems to render permissible (under the slight veil of symbolism) allusion to tabooed subjects that would remain repressed in a more "serious" atmosphere. This is exemplified in the change in attitude towards symbolism in passing from a "serious" scientific discussion to the lighter-hearted talk of the smoking room. Such a change to a more playful attitude reveals itself in a lowering of the threshold of conscious understanding in the case of sexual symbolism, while in other cases it may merely permit laughter at subjects that would be regarded as solemn or terrible in some other mood, as for instance in certain "grim" jokes about death or hell, which may raise a laugh or at least a tolerant smile even in a minister of religion, who would certainly not have permitted such an attitude in church or in serious theological discussion. Much the same factor of remoteness from serious reality may be responsible for the fact that even shy and modest people will often indulge in exuberant sexual or egoistic day dreams that seem totally at variance with their attitude in realistic situations. The peculiar privacy and individuality of daydreams seems here to play a role equivalent to the factor of playfulness in humor. But in another respect humor differs fundamentally from daydreams, inasmuch as it is essentially not private or individual. And this brings us to the second factor that seems to play a major part in the attitude to symbols: the social factor Because of the sharing of guilt involved, this factor permits the relaxation of repression — a relaxation which has probably something in common with the overcoming of inhibitions as between partners in the sexual act itself. Guilt is like sorrow, inasmuch as, if not exactly halved (as the proverb has it), it is at least greatly reduced by sharing; while the other part of the proverb, that shared joy is doubled joy, is also illustrated in humor in the happy sense of conspiracy in breaking some taboo — albeit in a "playful" manner which ensures its harmlessness.

THE PSYCHOLOGICAL DYNAMICS OF RELEASE

It is evident by now that the processes of releasing energy through humor can be extremely varied in nature. Not only is there variation in the generality or specificity of the source of the tension that is relieved, in the long or short duration of this previous tension, and in its emotional content, but there is much variation also in the psychic mechanism by which the relief is obtained. Sometimes this is dependent on a direct perception that there is no further

cause for tension, as in escape from a dangerous situation. Sometimes it involves an Adlerian process of "compensation," as when we laugh at our own misfortune or humiliation. Sometimes this is helped by a change of inner standpoint, as in humor in the specific Freudian sense. Sometimes the principal factor seems to be that of simple regression to a relatively childish or primitive level, as in "silly" verbalisms or behavior. Sometimes the relief is obtained by the kind of compromise involved in symbolism, while in this case, as no doubt in other cases also, guilt and anxiety can be reduced by the social participation which is such an important element in almost every kind of humor.

In a celebrated formulation Freud has written of the satisfactions obtained by wit and humor being dependent on "economy" of psychic energy, more specifically of the comic involving economy of thought, wit an economy of inhibition, and humor an economy of feeling This emphasis on "economy" might seem at first to contradict the more usual formulation in terms of relief or release, which involves, not economy, but expenditure of energy — energy which is seeking for an outlet. In terms of Freud's own thought, the stress on "economy" might perhaps be regarded (along with some of the theoretical formulations in *The Interpretation of Dreams*) as an early precursor of the notion of the "death instinct" or "stability principle" later developed in *Beyond the Pleasure Principle*. In general, however, these "economic" interpretations of laughter would seem often to be capable of fitting into the various methods of release of tension that we have already considered. The question of economy of thought through the comic had best be left to our consideration of cognitive factors. As regards wit, whereas others have stressed the release of emotional tension itself, Freud calls attention to the obvious fact that the existence of such tension often implies previously existing inhibitions or restraints, which inhibitions are (at least in part) suddenly removed through wit. There is thus, in accordance with the general psychoanalytic notion of intrapsychical conflict, a double release — a release of the hitherto pent-up instinctual energy, and a release of the energy holding this in check. When Freud speaks of the "economy of inhibition" he is thinking primarily of the latter (a factor which others had for the most part overlooked), but he does not, assuredly, intend to deny the former. As regards the "economy of feeling" in humor (in the Freudian sense) this, as we have seen, is achieved by a reduction of feeling through a change of standpoint, which involves at once a denial of the seriousness of the situation which has caused the feeling (the term "emotion" would be more appropriate) and the invocation of a superior quasi-parental protective power (the superego) with the help of which it is felt that the situation can be dealt with. As in the case of "compensatory" laughter in a humiliating situation, the energy of the emotion is not so much released or discharged — as in so many cases of sexual or aggressive wit — as relieved or allayed at its source by the change of psychological attitude Such release or discharge as does take place is through expression at the level of the new compensatory mechanisms or psychological attitudes invoked, as in the "elevating" quality of humor, the discharge occurring not so much at an instinctive as at a "higher," ideal, or sublimated, level.

On the whole, psychoanalytic writers on humor seem to have found themselves as little at home with the notion of "economy" as they have been with the later theory of the death instinct. They have been inclined rather to emphasize the factor of discharge, the regression to infantile omnipotence, and the fact that in humor generally the discharge is under the control of the ego, as contrasted with such discharges as are involved in neurotic symptoms and in parapraxes, which are not ego-syntonic, so that humor is a more "normal" and healthy method of discharge. As the result of some ingenious experiments (worth repeating on a larger and more systematic scale) in which a joke was split into parts and its different parts presented to various audiences, sometimes with slight verbal modifications, Eidelberg (1945) concludes that in wit the ego evades threats from the id and the superego by changing the satisfaction allowed to the id Kris (1938) speaks of the "mastery" by humor of what formerly caused fear, in a way reminiscent of Freud's theory of the mastery of traumatic experiences in play and terror dreams. Others, however, speak of the mortification of the ego, and Dooley (1941) considers that in humor the ego, having conceded defeat, "wangles" compensatory satisfaction by claiming the love of the superego, the internal representative and continuation of parental authority. On the whole, however, the contributions to the "metapsychology" of humor by psychoanalytic writers other than Freud himself have not been as convincing, enlightening, or mutually consistent as might have been hoped for in view of the considerable number of papers devoted to the subject.

Cognition

CONDENSATION

The use of symbolism, which we have just considered, leads us naturally to the more cognitive elements in humor, for although, as we have seen, symbolism subserves important orectic and social purposes, its ultimate nature is primarily cognitive, consisting, as the word indicates, in the "throwing together" of elements that are mentally rather than realistically related. Symbolism is, indeed, only a particular variety of that kind of fusion or mixture of different things, events, tendencies, etc, which is known psychoanalytically as "condensation" in its more cognitive and "overdetermination" in its more orectic aspects. Condensation affords that kind of "brevity" which in Shakespeare's often-quoted phrase, is the "soul" of wit, and, in fact, is an essential element in a vast number (probably the majority) of cases of verbal wit. In its simplest form it is seen in the pun, in which use is made of two (or more) meanings of a word or phrase — as in a recent criticism of the ballet *Swan Lake* in which it was complained that the dancers indulged in "a most incygnificant sort of action," or in the (probably unconscious) double meaning of "a single man" in the examination quoted earlier, which adds so greatly to the humorous effect of the answer. A further example is provided by the Jewish joke quoted by Freud· "Have you taken a bath?" "No, why? Is there one missing?" Sometimes a somewhat similar effect is achieved by applying a new and not altogether inappropriate term to a situation in which it is not usually employed, as in the reproof, quoted by Piddington, of the senior scholar to a freshman attempting to eat peas with a knife in a college dining hall: "You can't juggle here, Sir!"; or again by confusion with a proper name or what sounds like a proper name, as in the complaint of an employer concerning one of his staff: "This man just doesn't understand the meaning of work. He thinks manual labor is the President of Ecuador." This leads us to effects to be obtained by bilingual puns. A brilliant series of such witticisms is provided by Pearson's and Taylor's *Fractured French* (1951) in which fundamental verbal effects obtained by captions in English and French are supplemented by appropriate drawings. Thus the French caption "mise en scène" is translated "there are mice in the river" and the drawing represents a frightened girl with her skirts lifted, on a quayside with the cathedral of Notre Dame in the background, the pun being conveyed by this very indirect visual means In another example "pis aller" is translated "you have to cross over" and the drawing represents a rural railway station with a small building marked "Men" and "Women" on the other side of the tracks.

INCONGRUITY

The required "eduction of relations" [to use Spearman's term (1923)] between one language and another and between verbal and visual data, as illustrated in these last examples, provides us with a transition from cases of condensation, in which there is a definite fusion of two or more elements into one end product, to cases of juxtaposition, where the items are merely brought into close spatial, temporal, or other kind of relationship. It is here especially that we meet the element of "incongruity" referred to in so many treatments of humor, incongruity itself merging gradually into absurdity or impossibility. Examples are to be found probably in all the classical masterpieces of humor. Perhaps the most celebrated is.

> "The time has come, the walrus said,
> To talk of many things,
> Of shoes and ships and sealing wax,
> And cabbages and kings
> And why the sea is boiling hot
> And whether pigs have wings."

Here, in a way characteristic of primitive thought, as illustrated for instance in dreams and some schizophrenic productions, association by sound (in this case alliteration) often takes the place of association in reality, although in humor there may also take place (as in the above lines) what appears to be a positive search for elements which have not been previously related (as well as those which are absurd and contrary to fact). Some good recent examples of incongruity have been afforded by the British comic broadcaster Gillie Potter, who, for instance, in describing the wedding presents of the fictitious Lord Marshmallow's daughter, mentioned in particular "a statuette of a Zulu on roller skates rapidly descending the slopes of Mount Vesuvius and trailing behind him a cloud of gold dust on which could be discerned the words 'A present from Weston super Mare' " (a watering place in Somersetshire). Here again the humor consists in the bringing together of elements which are culturally and geographically remote.

Visual incongruities, as already mentioned,

afford some of the early occasions of laughter in children and continue their role in later life, as when David Garrick on the stage was hardly able to continue to play his part when he observed that a man in the audience had placed his wig upon the head of his dog which occupied the neighboring seat, or when (passing to "impossibilities") we laugh at the well-known recent drawing in a humorous magazine depicting the astonishment of a skier who observes that the track marks of another skier who has just passed him suddenly diverge to pass on either side of a tree.

The element of regression to playfulness — and perhaps "omnipotence" — is clearly evident in all this. Such playful incongruities contribute probably the most frequent and important examples of what Freud has called "harmless" wit, in which the pleasure is derived from economy of thought (rather than from economy of feeling or of inhibition). These "harmless" forms of wit are distinguished by Freud from "tendentious" wit, in which expression is given to some orectic urge. As already indicated, there has been some doubt as to the justifiability of Freud's "economic" formulations (although we have endeavored to say something in their defense) and particularly concerning the "economy of thought," which Freud regards as a characteristic of the comic. Economy of thought by itself, it has been urged, can hardly be the deciding factor; if it were, an algebraic formula should be comic, whereas in practice students of algebra, when they learn a new formula, seldom have to struggle to suppress their laughter. It seems more likely that the regression to a childlike, playful attitude, an attitude of *je m'en fiche* towards logic and reality, is the real determinant, although here again it can be replied that such regression does actually involve economy of mental effort — the effort to maintain ourselves at the level of reality thinking — and thus the explanation in terms of economy can still be justified, even though it is perhaps hardly the most natural or obvious way of describing what takes place.

"HARMLESS" AND "TENDENTIOUS" HUMOR

This in turn raises the question whether there is really such a thing as harmless wit, and whether there is not after all some "tendency" to be discovered at work beneath the apparently playful and innocent façade. Much depends, of course, on what we mean by "tendency" and where we draw the line between tendentiousness and innocence. If we call regression to the playful attitude a tendency, then all jokes are tendentious If, as Freud seems to have meant, "tendency" here implies the expression of some relatively specific emotion or desire (aggressive, sexual, etc.), even then, although there may be some innocent forms of humor, in which playfulness and enjoyment of reality-defying nonsense are the sole determining factors, there are other at first sight innocent forms in which an underlying "tendency" can be discovered. Lewis Carroll's classical nonsense may derive its charm principally from its innocence and harmlessness, and yet here and there we can surely detect an element of satire (directed mainly against the apparent pomposity of adult attitudes). Behind the series of incongruities of the "Zulu on roller skates," etc., there surely lies a veiled attack against the foibles of aristocratic and middle-class rural folk of the kind which seems to underlie Gillie Potter's broadcasts concerning life in the remote and mythical country town of Hogsnorton Even in individual jokes which stand by themselves, close inspection seems often to reveal a "tendency." The joke in *Punch* in which an elderly country farmer and his wife ask at the booking office of a railway station for "Two to Looe" (a small place in Cornwall), to which the booking clerk replies "Pip, pip," might seem at first to involve no more than silly verbal play. But here the attitude of the clerk is surely a cheeky one; he is making fun of the old couple, and this interpretation is strengthened by a glance at his face as depicted in the drawing. Proceeding a step further, there is assuredly aggression in the Jewish joke about "Have you taken a bath?", it is implied that a person who understands the word "taken" in the sense he does is more interested in acquisitiveness than in cleanliness. In reality, humor probably runs the whole gamut from (well-nigh) complete innocence to full tendentiousness; nevertheless, throughout this gamut the cognitive factors of condensation or incongruity often play an essential part; without them, as in the case of symbolism already considered, there would be only sheer nonsense (as distinguished from humorous nonsense) or crude expression of some tendency (as distinct from its expression in humorous form). The cognitive element is therefore fundamental and essential in every form of humor. Those writers who have stressed it are fully justified, except insofar as they may have tended to overlook the importance of the orectic factors that may also be at work. When, for instance, Bergson contends that emotion is incompatible with humor, he is, of course, perfectly correct as regards the grosser and more obvious expressions of emotion (he is indeed referring to many of the same facts as Freud

had in view in his doctrine of "economy") He neglects, however, the subtler and more indirect outlets for emotion, which are so rightly emphasized in the theories of "release," and regarding which so much additional light has been thrown by psychoanalysis.

AUTOMATISM AND HABIT

The feature of Bergson's contribution (1911) which has aroused the most interest, and is indeed most stressed by Bergson himself, is his view that comic effects are the result of living beings behaving as automata — "something mechanical encrusted on the living" This is undoubtedly true so far as it goes (the behavior of puppets, with their relatively jerky movements, has nearly always an element of "funniness"), but it is perhaps only a way of saying that there is always a certain "stupidity" involved in the playful and regressive attitude in humor, although deliberate wit differs from ordinary stupidity in being ego-syntonic — in the speaker, in the hearer, or in both When the booking clerk replies "Pip, pip," he wilfully misunderstands the request for railway tickets for the beginning of a comic musical call sign common in England at the time the joke appeared, and similar "misunderstandings" underlie a multitude of other jokes In this and similar cases (as Bergson himself, of course, points out) the "stupidity" often consists of reaction in terms of habit when the situation really calls for action in terms of intelligent adaptation. This is the contrast between "reproduction" and "eduction" to which Spearman (1923) called attention in another connection. Not all inappropriate habitual reactions are comic, only for the most part those that present the cognitive elements of condensation, incongruity, etc., or that give indirect expression to certain "tendencies" in the ways we have already discussed.

ALLUSION AND TOPICALITY

In many cases of humor the condensation or juxtaposition involved in the cognitive process depends upon "allusion" — a reference to some thing, person, event, etc, not directly mentioned. Many families, groups, and institutions have their own private jokes, that depend upon some hidden reference understood only by their own members, while comic political allusions may be peculiar to one country. In this way, among others, humor is bounded by time and space. In a university where nearly all students had recently seen the musical play "Annie Get Your Gun," a lecturer on psychology could count on a laugh when he defined instinct or propensity as "doing what comes naturally" (this being the refrain of one of the chief songs in the play); to another generation this may still seem a not inept description, but will hardly appear humorous. Topicality thus enters into many forms of humor.

SURPRISE AND REPETITION

Another factor in the cognitive aspect of humor concerns the matter of suddenness, which we have already encountered on the orectic side. Corresponding to sudden release (as in Hobbes' "sudden glory") there is sudden insight. Surprise, as Desai (1939) has shown in his extensive experiments on the subject, tends to intensify any emotion that follows it, thus enhancing the effect of the ludicrous, as it does that of the fearful, the repellent, and the irritating Surprise, moreover, has something special in common with laughter, inasmuch as it suspends (at least momentarily) any pre-existing activity, pending some necessary readjustment. It thus leads to a state in which for the moment nothing can be done, whereas in laughter the subjective state is such that nothing need be done. This similarity between the surprising and the ridiculous finds expression, as authors such as Kris (1938) and Willmann (1940) have noticed, in the use of the word "funny" to designate both the amusing and the astonishing or unexpected. When surprise does not give rise to laughter directly but only as a secondary reaction to some emotion which preceded it (and which was the first reaction to the "surprising" stimulus), the laughter, so Desai (1939) found, tends to be of the kind that is associated with some sense of inferiority or embarrassment, corresponding to the realization that the preceding emotion was unnecessary or inappropriate.

The absence of suddenness and of surprise is no doubt the chief reason why jokes tend to lose their humorous character on repetition, although there is much still to be learned about the influence of repetition in the sphere of humor Repetition, as was noted earlier in this chapter, can sometimes itself arouse laughter — perhaps because there is "allusion" to the previous occurrence, perhaps (as Bergson maintains) because it may seem to imply an element of automatism. The well-known difference in repetition tolerance between children and adults is hardly as yet fully explained, while Hollingworth (1911) in an early study found that on repetition there were "waxing" and "waning" jokes. The former, in which the

humorous effect actually increased with repetition, included most frequently jokes that were objective, naive, or dealt with self-induced calamity; the latter included puns, sharp retorts, witty word play, and occupational jokes In her pioneering investigation Martin (1905) found "fun fatigue" and "fun accumulation" in experiments where whole series of jokes were presented. There is much need for repetition and extension of these early studies.

Social Factors and Individual Differences

ATTITUDE

We have already incidentally (in dealing with sympathy and sorrow) drawn attention to the importance of attitude in enabling us to adopt the "playful" humorous point of view, as distinct from a more serious or realistic one. The appropriate attitude is indeed essential for all laughter and all appreciation of the comic. The adoption of this attitude depends partly upon the temporary "set" or mood of the individual, partly also upon his more permanent characteristics, those who readily see the comic aspects of a situation being popularly said to possess a "sense of humor." The appreciation and expression of the humorous obviously depend also upon social factors, these again being either temporary or relatively permanent in nature Laughter is thought appropriate in the smoking room or the variety theatre, in a church, at a formal ceremony, or at a Wagnerian opera (except perhaps in the deliberately humorous parts of the *Meistersinger*), it is highly inappropriate, and if it occurs may be utterly subversive to the mental attitude expected and required (although this illustrates again the perilous proximity of the ridiculous and the sublime). Since humor represents in many of its aspects a regression to a more primitive mental level, we are probably justified in regarding it as being often subject to inhibition — emanating either from the more "serious" emotions or from superego control. As noticed by Martin and several subsequent investigators, the voluntary inhibition of laughter greatly reduces the purely mental appreciation of the comic (an apparent vindication of the James–Lange theory, which deserves more systematic study than it has received). This is no doubt very helpful in maintaining a serious attitude when required, although in other cases the inhibitions would seem to work at deeper levels (we noted above how the threshold for the conscious appreciation of sexual symbolism may vary according to the temporary social atmosphere). Jokes in general and, as already noted, sexual jokes in particular, are enjoyed most readily among those of comparable age and social status. Authoritarianism in any form seems inimical to humor — and here again is a matter deserving further study. The extent to which humor is permitted or encouraged to intrude on serious occasions may vary considerably from one culture or country to another Judging from my own experience in Europe, for instance, laughter is looked upon more favorably in lecture rooms or political meetings in Britain than in certain other countries. In these and many other ways there are social and individual problems connected with humor, the psychological treatment of which has only recently begun or has not yet been seriously attempted.

TYPES, TEMPERAMENT, AND FACTOR ANALYSIS

Can differences in sense of humor be measured and are there also ascertainable differences in the kinds of joke or humor which appeal to different kinds or types of individual? These are questions to which an answer should be possible with the help of tests of humor on the one hand and appropriate statistical analysis upon the other. According to the results of Murray (1934) with a small group of Harvard students, the enjoyment of derisive humor is associated with egocentric, aggressive, world-derogatory sentiments, Kambouropoulou (1926, 1930) found that more extravert subjects showed a preference for jokes involving an element of "superiority." According to Sears (1934) there are two major factors determining the appreciation of jokes in different types of personality, the "schematic" or cognitive and the "thematic" or orectic. The "themes" in the jokes used by Sears were selected as appealing to various tendencies commonly subject to some degree of social inhibition — sexuality, scatology, superiority, etc. Working with a small group of children whose temperament had been intensively studied by teachers' ratings and Rorschach tests, Williams (1945) found two somewhat similar groups which displayed what she called "personal" and "impersonal" attitudes respectively, the former showing most appreciation of jokes in which some emotional tendency (especially, in the case of her subjects, superiority) played the chief part, the latter preferring jokes depending largely on "humor of incongruity and the fantastic." The first of these groups showed a tendency to extraversion, the second to introversion. In his and

his collaborators' very extensive researches on neurotic or ill-adapted British service men and women during the second world war, Eysenck (1947) obtained results that he claims to be in substantial agreement with those of the previously mentioned investigators, although they also extended into further fields. Contrary to his findings in certain other spheres (e.g., that of aesthetic appreciation), he could discover little or no "conformity," in the sense of general agreement as to the relative humor values of various individual jokes or different kinds of humorous material (cartoons, limericks, verses, etc.) — a result in accordance with that of some other investigators, such as Stump (1939), Heim (1936), and Omwake (1939).

It seems therefore less justifiable to speak in general terms of a "good joke" than it is to speak of a good picture or other work of art, as regards which there exists a greater consensus of opinion. On the other hand, in spite of this varying appreciation of individual items, the total amount of "fun" extracted by any particular observer from the material presented tended to remain constant from one test or type of material to another, so that there does seem to exist something in the nature of a general "sense of humor," at any rate within the field covered by the tests. When the total humor scores of various types of patient were compared, it was found that "hysterics" (in the sense of "conversion hysteria") as a group scored consistently higher on all tests than "dysthymics" (those suffering from anxiety and obsessional states), so that liability to "hysteria" seems to be related to the possession of this general sense of humor — although it was also found that hysterics had a special preference for sexual jokes. Further analysis designed to discover the existence of persons with special types of humorous appreciation resulted in the extraction of a bipolar factor as between those who preferred predominantly orectic (aggressive, sexual, etc.) and predominantly cognitive (complex, "clever") jokes respectively, the former — as in the previously mentioned investigations — being predominantly extravert, the latter predominantly introvert.

In contrast, however, with these findings pointing to a special relation between character type and preference for particular kinds of humor, Landis and Ross (1933) found no significant relation between introversion-extraversion, as measured by Freyd's I-E scale and general score in humor tests. A further finding of interest on the side of temperament was, however, that of Stump (1939), whose work with 90 students revealed only a low correlation between test scores and self-estimated sense of humor, although this latter measure correlated highly with "aesthetic" and "social" values on the Allport-Vernon values scale.

Other factor-analytical studies reveal the possible existence of further more subtle factors, especially on the orectic side. Thus Andrews (1943), working with 300 subjects, on the basis of a rotated factor matrix suggested six factors, corresponding respectively to (1) derision-superiority, (2) reaction to debauchery, (3) subtlety, (4) play on words and ideas, (5) sexual, (6) ridiculous wisecracks; while Cattell and Luborsky (1947), presenting 100 jokes (including 25 of Andrews') to 100 young men and women, found five general personality factors, corresponding to (1) good-natured assurance, (2) rebellious dominance, (3) sex repression, (4) passive derision, (5) sophistication. In these researches the factors labeled subtlety, play on words and ideas, ridiculous wisecracks, and sophistication suggest dependence on predominantly cognitive processes, so that the main division into orectic and cognitive would almost certainly be applicable to these results also.

HUMOR AND INTELLIGENCE

Curiously enough, in spite of the obvious dependence of the cognitive aspects of humor upon insight and the relative ease with which intellectual ability and scholastic achievement can be measured, there is still no agreement as to the exact relationship between intelligence and sense of humor, either in children or in adults. Brumbaugh (1939) found, as is to be expected, that brighter children recognized absurdities more readily (absurdities have, of course, often been used as tests of intelligence), while in Hester's work (1924) with insane subjects many more jokes were graded as poor or not funny by the insane than by normals. This, the author considers, was attributable to lack of intellectual insight or low emotional tone (although the ranking of jokes correlated .51 with that by normal children). Wynn-Jones (1934) in a "scale of wit" covering a wide range found marked differences in score, depending no doubt both on intelligence and educational achievement, as between university graduates and schoolboys of various standards. However, most investigators who have dealt with the question or who have relevant data found that intelligence and humor are not highly correlated in a normal, fairly homogeneous population. In a pioneering research Webb (1915) discovered that estimates of intelligence are liable to be unduly influenced in a favorable direction

by the possession of a sense of humor. In more recent years Omwake (1939), Gregg (1928), Brackett (1934), Ding and Jersild (1932), Landis and Ross (1933) have concluded that intelligence in its turn is not a deciding factor in the appreciation of humor, while even investigators such as Wynn-Jones (1927), Piret (1940), and Mones (1939), who stress its importance, allow that its operation is masked by temperament, attitude, or other orectic factors. Brackett, dealing with records of 29 nursery-school children of 18-48 months, gives some suggestive correlations that show a contrast between frequency of laughing and crying:

	Laughter	*Crying*
C A.	44	–.47
M A.	26	–.40
I Q	07	– 09
Height-weight index	.89	– 36
Amount of language	.60	.00

Thus, as we might on the whole expect, laughter in young children tends to correlate with (successful) development, crying to correlate with lack of it Laughter also, as is to be expected, goes with general cheerfulness, although, in adults at least, it occurs very much more frequently than weeping Thus, dealing with college students, Young (1937) found that weeping occurred on an average only once in about 3 weeks, laughing so often that only a vague guess could be made, the correlation between self-estimated frequency of laughter and self-estimated cheerfulness was .28.

SEX DIFFERENCES

Few significant differences between the sexes have so far been revealed, although in studies with children of various ages sex differences in total humor scores have occasionally been reported. Kimmins (1928) found that at early ages girls tended to rank higher, but that at later ages boys displayed a wider range of appreciation of the ludicrous According to Brumbaugh (1939) the humorous drawings of boys show more originality than those of girls, although, as in other researches, individual differences are greater than sex differences. In Laing's research (1939) girls more often deprecated "unfeeling laughter." According to Eysenck the men claimed to know more of the items in his tests, although the women scored as highly as the men, except in the sphere of sexual humor. The latter result was found also by Ghosh (1939) and certain others. There is indeed a general opinion (although it is hardly substantiated by any exact observation) that women and girls indulge less readily in "smutty" jokes than men and boys — and this probably corresponds to the fact that obscene drawings or inscriptions are found less often in women's public lavatories than in men's Ghosh and some other students are inclined to regard this difference as due to purely cultural conventions (he found that with adaptation to the experimental situation women laughed much more freely at sexual jokes than they did at first) and indeed one would imagine that the difference in question would have been larger 100 years ago than it is today. Austin (1924), however, is inclined to think that women, in virtue of their biological role in reproduction, take a more serious view of procreation. She admits, though, that so far as they are freed from the fear of involuntary pregnancies they may laugh more This suggests that in women there might be found a positive correlation between the enjoyment of sexual humor and the knowledge, availability, and mastery of contraceptive techniques — a line of research that has yet to be attempted!

NATIONAL DIFFERENCES

There is little clear evidence as regards national differences in humor. The existence of such differences has often been suggested and they have sometimes been related to supposed differences in the personality types prevalent in different nations. Thus in one of the more ambitious attempts in this direction Egner (1932) finds German humor full of sympathetic feeling, while in their humor the English attempt to fight off the seriousness of life; American humor is primitive and delights in exaggeration which to Germans seems silly, while French wit is cruel and hostile. Other investigators, however, have so far found practically nothing to support these or any comparable formulations. Thus Kimmins (1928) discovered little difference between American and English humor, Kinnosuke (1927) little between American and Japanese, although Wolff, Smith, and Murray (1934), looking perhaps in a more profitable direction, suggest that laughter can be raised more readily by the foibles of other nations or races than by those of our own. This is probably to some extent a matter of mere surprise-evoking difference (the ways of other peoples are apt to seem "quaint" or "funny," whereas we take our own way of life for granted), while it is also to some extent a manifestation of intergroup aggression [the mere fact of difference constituting a challenge to our complacency in the manner alluded to by Freud (1925)]. Similar influences are no doubt at work as regards the dif-

ferences between the sexes and between social classes, the latter being a field to which Pear (1933) in particular has directed our attention We have already referred in another connection to Reik's interesting study (1929a) of Jewish humor. Probably the most thorough investigations in the field of national differences are those of Eysenck (1944). Although corroborating the existence of strongly held views as to the relative goodness and particular characteristics of the humor of various nations, he could find little evidence for the soundness of these views Thus there was no significant difference in the ranking of humorous material by English and German subjects (the Germans were, it is true, refugees resident in England, but selected as being "as far as possible uncontaminated by English culture habits"), while such differences as existed between his American and English subjects could, he considers, be attributed chiefly to differences in educational and cultural status. In another research he endeavored to find whether comic cartoons of varied national origins could be allocated to their respective countries by subjects ignorant of their origin. When "external" criteria were used (e g, an American uniform, a German helmet, traffic on the left side of the road), as was often the case, there was a considerable degree of success, but when reliance was placed on purely "internal" criteria (e g., manner of drawing, type of humor employed) results were not above chance expectation. With his particular (English and Canadian) subjects there was a positive correspondence between "guessed" nationality and estimated funniness, supposedly American humor receiving high marks, supposedly German humor low ones; but there was no similar correspondence in the case of "real" nationality of origin. Employing a third method, Eysenck made a statistical study of the themes of certain national humorous journals. He found that the differences between two journals of the same nationality were often far bigger than those between journals of different nationality. Each journal, rather than each nation, has its characteristic themes Thus about two-thirds of the cartoons of the British comic journal *Razzle* refer to sex, drink, or violence, the corresponding percentages of *The New Yorker* and *Punch* being 26% and 0% respectively On the other hand, class stratification provides *Punch* with 72%, *The New Yorker* with 34%, and *Razzle* with 11% of its material.

APPEAL THROUGH THE DIFFERENT SENSES

Humor makes its appeal almost exclusively through the senses of vision and hearing, with language (through the written and the spoken word) often operative in both categories. Music, however, can have a humor of its own, apart from language, and in Mull's unusual study (1949) of this subject (in which 30 students were observed while listening to Strauss' *Till Eulenspiegel* and Rameau's *La Poule,* with nonhumorous music as a control) it was found that the basis of humor here is much the same as elsewhere, a quick volte face (cognitive) in conjunction with a nonpractical attitude (orectic) Those interested in music will probably have little difficulty in recalling humorous compositions or humorous episodes in music, in which the playful, the unexpected, or the incongruous plays a part. Musical caricature has also sometimes been attempted, Bétove's *Pastiches Musicaux* being exquisite examples of this kind Mere unfamiliarity with the musical idiom employed — as in the case of oriental music when first heard by occidental ears, or even in the case of western composers who have departed from the conventions of their predecessors — may arouse a tendency to laughter. The present writer well remembers the amusement he experienced as a young man on first attending a performance of Strauss' opera *Feuersnot,* though it is only fair to add that this amusement was accompanied by a certain sense of "elevation" induced by the (to him at that time) novel but striking sequences of sound. Here is a rich field as yet almost untouched by the psychologist, and the same applies to humorous effects produced in pictorial art and the comparison of such effects in the auditory and visual spheres.

There seems to be general agreement that humorous journals have in recent years tended to lay increasing emphasis on the visual element (in drawings) and less on the written word. Long captions to illustrated jokes have disappeared, and many drawings are indeed left to speak for themselves without verbal comment of any kind. Only a few investigators have compared the humorous effect of the same jokes presented visually and vocally. Using two groups of high-school children equated for intelligence, Omwake (1939) found that the rank order of the jokes was much the same whether the jokes were read or heard (from phonographic records), although the visual method facilitated comprehension In a research combining social and sensory variables Perl (1933b) showed that the humorous effect of jokes was greatest when presented visually to groups, significantly less when presented vocally to groups, and least when judged by individuals at home, although the difference between the last two

methods was hardly significant Lange (1927) studied the effects of a comic song when presented (1) with words alone, (2) words and costume, (3) words and business, (4) words, costume, and business Costumes enhanced the funniness by 100%, business by 400%, both together by 600% There is clearly room for more research along these lines.

RELATION TO ART

These considerations bring us to the borderland between humor and art — a subject that can be only touched on here, as a fuller consideration would involve us in the vast literature dealing with aesthetics and more particularly with the art forms of comedy, farce, burlesque, and caricature Bergson (1911) considered that comedy lay halfway between art and life In ordinary life we are concerned with concretely practical problems Art deals with the profounder realities and without reference to practical affairs Tragedy is a form of pure art in which the deeper realities are seen through the medium of the *individual* mind, whereas comedy is concerned with the relatively superficial and automatic as manifested in certain *typical* human personalities — a difference that finds expression in the fact that the titles of comedies often refer to several individuals or a class of individuals (*The Frogs, The Merry Wives of Windsor, Les Précieuses Ridicules,* etc, while the titles of tragedies refer more often to single individuals (*Agamemnon, Othello, Le Cid,* etc). As in the case of wit and humor generally, comedy has a corrective function in making us aware of socially unadapted automatisms, and in dealing with the typical it makes this correction over as wide an area as possible — as distinct from the detailed practicality of ordinary life on the one hand and from the "purity" of art upon the other. Vanity is perhaps the most widely prevalent of our "mechanical" foibles, corresponding as it does to "a certain self-admiration which is almost automatic," and is therefore the most essentially laughable characteristic of those which lend themselves to the corrective function of comedy and wit This Bergsonian corrective or therapeutic function of the comic through increased awareness, which on the one hand contrasts with the more emotional Aristotelian "cathartic" function of tragedy and the cathartic method in modern psychotherapy, is on the other hand suggestively reminiscent of the psychoanalytic therapeutic aim of curing neurotic disturbances by increasing conscious awareness and ego control, although any detailed comparison along these lines has not, so far as the present writer is aware, been made by any follower of either Freud or Bergson

Caricature, with its exaggeration of particular characteristic features, might seem to have important elements in common with comedy as understood by Bergson, although for the most part it deals with individuals rather than with types Here, again, the possible corrective function in its relation to the work of Bergson and Freud has for the most part been neglected On the other hand, Kris and Gombrich (1938) stress, no doubt correctly, the aggressive elements that find expression in caricature. The caricaturist, according to them, attempts indeed to show the essential features of his subject, not the perfect form, however, but rather "the perfect deformity." Caricature, they suggest, is ultimately based upon (homeopathic) image magic, whereby the distortion of features is intended to injure the person who is caricatured. It is, however, a sublimated and refined expression of aggression and could only come into being (portrait caricature began at the end of the 16th century) when a certain psychic mastery of the cruder forms of aggression had been attained and when conscious belief in the efficacy of image magic had begun to decline

Reik (1929b), in an interesting comparison of artistic creation, wit and daydreaming, points out that the daydreamer, unlike the poet and the wit, is ashamed of his fantasies. Both art and wit, through their social function, have been purged of guilt. The art *form,* he suggests, somehow stands for sublimation of the repressed wishes — a notion which is independently elaborated and carried somewhat further by Ehrenzweig (1948, 1949) in papers dealing with the general problem of unconscious form creation in art. According to this latter author, the aesthetic tendency in our surface perception, which tends to perceive or create the aesthetically "best" gestalt, has the dynamic tendency of counteracting the crudely sexual or "pangenital" tendency in depth perception. In virtue of overdetermination "two projection processes occur simultaneously in different layers of our mind. Our depth mind, obeying the archaic pangenital urge, projects a sexual meaning into any form perceived, while our surface mind counteracts this projection by projecting, in its turn, an aesthetic ('good') gestalt into the external world" (1949, p. 88) — the perceptual process that has been studied in such detail by the Gestalt psychologists. Our conscious feelings of beauty match the strength of the unconscious sexual symbolism, in virtue of a principle which the author traces back to

Nietzsche. This overdetermined kind of perception that is at work in the appreciation of art form generally as well as in caricature and wit is, Ehrenzweig suggests, fundamentally of much the same nature as the "constancy principle" that in adult waking perception enables us to recognize the same "thing" in spite of great sensory variations in shape, size, color, brightness, etc. But while in waking perception this principle "serves a very rational purpose of identifying real things in spite of their varying aspects the recognition of similarity in a caricature, and the multiple thing perceptions of the child or of the dreamer, use this precious ability for an irrational form play" (1949, p. 97) — and it is this irrational form play that is largely operative in wit and humor. In modern art, as in wit, the conscious gestalt principle is often baffled, and in both cases laughter may be imagined to result from discharge of the energy which, owing to the absence of gestalt formation, is dammed up and can find no outlet at the purely conscious level.

Returning to Reik's essay, art and wit, though having much in common, differ in certain significant ways in addition to the humorous quality of the latter. Thus an art product has a long elaboration or incubation in the unconscious, wit only a momentary one, hence its relative crudity. Moreover, the particular occurrence or stimulating occasion that starts off the artist is unimportant (Goethe's relation to a particular girl who may have been the real-life prototype of Gretchen has no bearing on the artistic value of *Faust*). Wit, however, is much more dependent on what we called above its "topicality." What is witty in one age or on one occasion is not so at other times and places, whereas good art is relatively timeless. Nevertheless, both the artist and the creator of wit make use of and give expression to repressed tendencies. Both art and wit represent a kind of confession, and this fact determines the attitude of the artist and witticist towards the reception of their creations by others. A favorable reception is reassuring, and in the case of wit may enable the witticist to join in the laughter. Such a reception shows that love and social approval have not been sacrificed by the (veiled) display of sexual or aggressive tendencies. If the audience approves of the form (in art or wit), it is taken to approve also of the unconscious tendencies underlying it, and the pleasure of approval is added to the narcissistic pleasure of artistic or witty creation. If there is disapproval — manifested in the sphere of wit by failure to react by laughing — this is unconsciously taken to apply to the repressed tendencies as well as to the artistic or humorous form in which they have been clothed

These few, as the present writer feels, very suggestive approaches indicate that progress is being made in our understanding of the relation between humor and art, although it is clear that much still remains to be done in this wide and fascinating field.

SOCIAL ENVIRONMENT AND SOCIAL FUNCTION

These references to the social influences common to art and wit bring us to our last topic, the specifically social aspects of humor If this section should appear disproportionally short, especially in a Handbook of Social Psychology, this is due in the first place to the comparatively small amount of work hitherto devoted to the social psychology of humor, and secondly and more importantly to the fact that although we may have to seek the origins of laughter in the biological or physiological rather than in the sociological sphere, humor and wit are riddled through and through with social significance, so that practically every aspect of humor that we have hitherto considered is socially determined and conditioned Like all expressions of emotion, laughter has a social meaning in that at least one of its most important functions is to attract the attention of our fellow beings and to elicit an appropriate reaction from them, while in turn our own behavior (to laugh or not to laugh, and in what circumstances) is to a very large extent dependent on their attitude.

A number of researches, such as those of Perl, Omwake, Brumbaugh, and Brackett, to which we have already referred, tend to show that laughter occurs more frequently and humor is better appreciated in an appropriate setting (although the inhibition of laughter when it is inappropriate has been less studied and no doubt lends itself less easily to observation). With very young children Brackett found a correlation of .75 between frequency of a child's own laughter and his presence in situations where others laughed (the corresponding correlation for crying being 33) Brackett also found that the children who rank high for liability to laughter prefer others who manifest the same tendency (which reminds us of the proverb "laugh and the world laughs with you, weep and you weep alone") There is, however, almost certainly an even higher correspondence between smiling and social situations (Ding and Jersild found this with Chinese kindergarten children), as the smile has become a conventionalized expression of good will and friendliness and its absence where it is expected

can cast a chill over a social gathering. A social environment has, as Perl found, a greater influence in raising the score of "poor" jokes than of good ones, social influences no doubt showing here their customary effect in reducing critical power and discrimination. Nevertheless, according to the same investigator, there is a wider range of scores under social conditions than when the subjects are alone — corresponding perhaps to the effects of crowd suggestion which tends (even as here, in a social situation, when there were no gross manifestations of emotion) to make us see things more crudely as "good" or "bad."

Lange (1927) studied crowd reaction to four performances of *Iolanthe*. She found little difference between the four audiences. When songs were encored, the laughs were of about half the duration of that on their first hearing. With amateur performances, however, the laughter was less constant from one occasion to another, although surprise situations and accidents were apt to arouse laughs, and laughter might be curtailed by the actors forgetting to wait for laughs. She suggests indeed that the duration of laughter tends to increase in direct proportion to the experience and training of the actors. Morrison (1940), who also studied audience laughter at plays and films, found it to be less constant than in Lange's observations; there was, however, a high correlation between the number of laughs per performance and the number of people attending. Turning from the theater and cinema to the political platform, Lull (1940) studied the persuasive effect of humorous and nonhumorous speeches which were comparable as regards argument, length, etc., and found no difference in their effects as judged by their influence on appropriate attitude scales.

Burma (1946) and Burrows *et al.* (1944) consider certain relations between humor and war. The former gives examples of humor as a form of aggression and as providing one of the techniques of total war, while Burrows and his collaborators stress rather the modifications of humor due to war. In general, these modifications take the form of reducing intranational aggression, e.g., as regards traditional and stereotyped attitudes towards minorities such as Negroes and Jews, while jokes against the enemy must not be such as to make him appear feeble, lest wartime effort be impeded — a point that would have pleased Ludovici who, more than any other modern writer, has emphasized the dangers of humor in reducing seriousness. Insofar as intranational aggression is permitted, it must be directed against the unsocial citizen who shirks his share of the national responsibility.

Turning, as it might perhaps seem, from the sublime to the ridiculous, there has been considerable discussion of children's "comics," often centering about the accusation that they foster bad taste and socially undesirable attitudes. Those who, like Brumbaugh (1940), Reed (1944), and Cavanagh (1949), have made studies of this question, corroborate the great gap that often exists between adults' (especially teachers') and children's taste in humor as reflected in their respective attitudes to "comics," but doubt whether the supposed harmfulness of these latter has been proved. The manifestations of adult displeasure, Brumbaugh suggests, may only succeed in making children suspicious of their elders' competence to guide them in the selection of reading, radio, motion pictures, and other forms of entertainment.

Returning finally to matters of general theory, there is a wide consensus of opinion that humor performs a useful social function, although there is some disagreement as to the fundamental nature of this function. These differences, however, might perhaps be largely reconciled if considered as applying to different aspects or kinds of humor. Bergson sees in laughter a corrective of harmful automatisms by making us aware of their absurdity — and therefore perhaps a factor conducive to social progress. Others, by their accent on relief or relaxation, point rather to a certain conservatism in the attitude induced by humor, inasmuch as laughter indicates that there is no need for serious effort or readjustment. Thus McComas (1923) regards laughter as in its origin a signal announcing good news and Hayworth (1928) similarly looks upon it as a social signal to the group that it might relax, while Baillie (1921), Wallis (1922), and, with a slightly different emphasis, Bliss (1915) hold that it serves as a social corrective by preserving mental stability and social unity in the face of the incongruous, the unexpected, or the socially disruptive. All, however, seem to agree that laughter, although part of the human biological equipment, is yet highly susceptible to conditioning and thus capable of responding to, and in its turn facilitating, social change. With regard to such change, there seems still to be a lack of adequate study of the social implications of the things we laugh at. Such detailed studies might be very revealing. It is surely significant for instance, that, as Myerson (1925) points out, we are often roused to mirth by the real or supposed manifestations of mental disease whereas bodily illness tends to arouse our sym

pathy or some other serious emotion rather than our ridicule. On the other hand, as authors such as Armstrong (1920), Wilson (1927), and Carpenter (1922) have emphasized, humor has immense potentialities for good if it can be aroused in connection with social situations, the evil of which springs from our taking them too seriously (e g., superstitions, out-of-date taboos, and, above all, intergroup hatreds and suspicions). Laughter, as Carpenter has put it, may sometimes be "a glory in sanity," when it can induce our superego to take a view of reality unclouded by our irrational anxieties and animosities, our ethical and social prejudices. "Some day," says Armstrong, "we will laugh at the comic excesses of whole continents which culminate in world war." In similar vein, Wilson declared that "humor may do more than a League of Nations to keep peace in the world." Insofar as we have learned to laugh at the right things, we shall have freed ourselves from an immense burden of anxiety, confusion, cruelty, and suffering, and shall have taken a significant step towards attaining that godlike clarity of vision that will enable us to distinguish what is truly good from what is truly evil.

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Part 5

Group Psychology and Phenomena of Interaction

CHAPTER 21

Experimental Studies of Group Problem Solving and Process*

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This chapter is intended to summarize the literature on the experimental investigation of problem solving by small groups. It does not pretend to deal with all aspects of the dynamics and structure of human groups. Rather, the focus is on the communication process and the interaction involved in producing group solutions to various types of problems. Other aspects of group psychology, relating to leadership, group organization, and sociometric structure, are taken up elsewhere in this volume. Especially apparent to the reader seeking a complete outline of group psychology will be the omission of a discussion of group formation — here we take the existence of groups for granted.

Our purpose is to consider a broad range of factors which are known to affect group process and to examine them as they relate to group problem solving. This is a very natural vantage point from which to view much of the literature, since groups in experimental studies are typically required to work at some sort of task. The reason for this is clear. When more or less permanent groups are studied, the data from different groups become more comparable when they are placed in the same situation and assigned standard tasks. In research with temporary groups formed especially for a given experiment, a group task is even more important. The collection of individuals thrown together at the beginning of the experiment becomes a "group" as the members accept a common task, become interdependent in its performance, and interact with one another to promote its accomplishment. For these and accessory reasons, small group researchers typically assign some sort of problem to their groups, e.g., estimating the number of beans in a bottle, learning a list of nonsense syllables, recommending revisions in state parole practices, solving a puzzle or a problem in logic, judging the aesthetic qualities of artistic works. The assigned problem usually, but by no means always, meets the following two conditions: (a) there are a number of alternative solutions or answers and (b) each individual member can make a judgment as to the best solution (or can work on the problem and solve it, or attempt to solve it) independently of others. The group is typically required to reach some sort of decision on a single solution or judgment to constitute its answer as a group. In a limited but controlled way, this procedure simulates and thereby illuminates an important phase of the total functioning of most natural small groups — a management committee in the process of deciding on a new personnel policy, the group of judges selecting the winner of an art competition, a community group planning a program to relieve intergroup tension, a legislative committee drafting a new bill. Let us briefly examine the place of problem solving in the total social system of the small group.

*Although the responsibility for this chapter rests solely with the authors, acknowledgements are due various individuals and organizations for their generous support during its preparation. Robert H. Peters gave invaluable advice and library assistance during the writing. Sincere thanks are extended to John R. P. French, Jr., Chris Argyris, and Edward E. Jones for suggestions concerning the manuscript. The chapter was written while Thibaut was engaged in research at the Laboratory of Social Relations, Harvard University. Kelley participates in a research program on communication and opinion change supported by a grant from the Rockefeller Foundation and directed by Carl I Hovland.

THE SOCIAL SYSTEM OF THE SMALL GROUP

Not all groups are *action* groups in the sense of being primarily concerned about solving problems and effecting changes in their external environment. Jennings (1943) has distinguished between "sociogroups" in which the relations among members exist primarily with

respect to working together on some common objective problem, and "psychegroups" in which intermember associations constitute in and of themselves the major object of membership and the central purpose of the group. She points out that groups do not fall neatly into one or the other of these two categories but that, for example, every psychegroup must reflect some concern with external problems. However, these two extreme characteristics do seem to define a continuum along which small groups can be distributed.

It seems generally agreed that even in a group that is mainly oriented toward its environment, strong affective relationships develop among the members which must be taken into account in analyzing the group's total functioning. This view is stated in detail by Homans (1950). He begins his analysis with the *external system* of the group: the pattern of members' sentiments, activities, and interactions which arises in response to the problem of the group's survival in its environment. Homans finds evidence that on the basis of these problem-oriented interrelations, new interpersonal sentiments develop among the members, and these sentiments are expressed in activities and interactions over and above those required by the external problem. This latter system of sentiments, activities, and interactions Homans refers to as the *internal system* of the group. Of significance is Homans' analysis of the manner in which the internal system reacts back upon the external system and modifies the group's response to its environment. In brief, the group's action with respect to an external problem is affected to some degree by the pattern of person-oriented feelings and activities which inevitably emerges from the communication and interaction process involved in any group effort.

Various other investigators make similar but not identical distinctions between the internally and externally oriented social systems. In his analysis of the functions served by member participation, Deutsch (1949a) distinguishes between "task functions" — participations directed toward the task with which the group is confronted — and "group functions" — participations directed toward the maintenance, strengthening, and regulation of the group (see also Benne and Sheats, 1948). The latter functions include some that directly contribute to maintaining friendly interpersonal relations within the group. Both Homans and Deutsch were apparently influenced by Barnard's (1938) earlier distinction between the *effectiveness* of a group in getting work done and its *efficiency* in providing personal satisfactions for its members. Most recently Cattell (1951) has suggested analyzing the total goal-seeking energy (or "synergy") invested in a group by its members into two components (1) the part used to carry out the explicit purposes of the group (effective synergy) and (2) the part used up in maintaining its internal activities (maintenance synergy).

Thus, the pattern of motives, actions, and interactions centering about the group task comprise but part of the total social system of a group. Moreover, this task-oriented part of the total system probably is highly interdependent with the other parts (indeed, in practice it may be virtually indistinguishable from them), which largely comprise those internal processes in which personal interactions constitute ends in and of themselves.

Finally, the process involved in group problem solving is to be viewed as merely one aspect of the task-oriented processes of the total social system. This area of research is only a part of the broader topic which we might label group locomotion and which has to do, in general, with the operations by which groups change their positions within or effect changes upon their social and physical environment. Such changes involve both planning (in a broad sense) and production — the labor or manufacture through which products are made or environmental modifications are achieved In the experimental research on small groups, the focus has usually been on the planning processes — the information collection, the imaginative proposals, and the acts of reasoning, judgment, and planfulness that are often prerequisites to the production of physical entities. Taken broadly, these planning operations define the "problem-solving processes." In what follows, we shall limit our attention to these aspects of group locomotion. We shall also briefly consider the interpersonally oriented processes insofar as they operate to disrupt or facilitate the problem-solving functions of the group.

MODELS OF GROUP PROBLEM-SOLVING PROCESS

Most of the analyses of the group problem-solving process appear to derive by analogy from the stages or phases believed to exist in individual problem solving. Commenting on Carr's (1929) early analysis of the interactions occurring in committee work, Dashiell (1935) remarks about

> ". . . the striking similarity between the inter-individual procedure and the intra-individual

procedure . . ." He continues, "*Qualitatively*, then, group discussion seems to be adequately characterized by the traditional analyses of individual thinking, as, e g., stated by Dewey as· (1) Motivation by some felt difficulty, (2) its analysis and diagnosis, (3) suggestions of possible solutions or hypotheses, (4) the critical tracing out of their implications and consequences, and, perhaps, (5) an experimental trying out, before (6) accepting or rejecting the suggestions." (p. 1131)

Very similar conceptions (e.g., of motivation, analysis, suggestion, and evaluation) appear in recent analytic schemes which are applied to discussion and problem-solving groups. Consider the list of functional role categories reported by Benne and Sheats (1948). Among other roles they describe the "energizer" (who prods the group to action), the "information seeker," the "information giver," the "initiator-contributor" (who proposes new ideas), the "elaborator" (who spells out suggestions, e.g., through examples), the "opinion giver" (who states his opinion in regard to a given suggestion), and the "evaluator-critic." However, they also describe some important roles that are not readily obtained from an analysis of individual problem solving. These, the "group building and maintenance roles," have to do largely with facilitating communication and agreement among the members. This set of roles includes the "harmonizer" (who mediates disagreements among other members), the "expediter" (who encourages participation and free communication), and the "encourager" (who indicates solidarity with the group and acceptance of others' points of view). These latter roles refer to a set of functions that is either unique to group problem solving or is vastly more important in the group process than in the individual process. These functions have to do with facilitating the interchange of ideas and opinions among various participants and deriving some sort of synthesis or agreement from among the various factions and points of view that compete for pre-eminence.

Bales' (1950) model of group problem solving has much in common with the foregoing, but he goes further in analyzing the sequence of various phases of the process. His twelve categories of interaction and methods of observation are treated elsewhere in the *Handbook* (Chapter 11) and we shall assume that the reader is familiar with them. The observation of interaction in problem-solving groups will reveal, Bales and Strodtbeck (1951) say, a movement ". . . through time from a relative emphasis upon problems of *orientation*, to problems of *evaluation*, and subsequently to problems of *control*, and . . . concurrent with these transitions, the relative frequency of both *negative reaction* and *positive reaction* tends to increase" (p. 494). In terms of the specific categories of Bales, early interactions are concerned largely with asking for, giving, repeating, and clarifying information. The next (evaluation) stage involves emphasis upon seeking and giving opinions, analyses, and expressions of feeling. The control stage consists of asking for and giving suggestions, directions, and ideas for possible lines of action. It is assumed that these three phases must follow in this order because earlier steps are "functionally prerequisite" to later ones. Thus, making evaluative statements implies previous orientation to the problem. As the process moves toward increasing emphasis on control, negative reactions are assumed to increase. But also, as the group experiences some success in its efforts and as a decision is reached, expressions of positive feelings are elicited. The negative and positive reactions tend to appear in alternation during the final stage of the problem solution.

The foregoing sequence is expected to hold only when the problem-solving group is a moderately cohesive group composed of "normal" adult members of our own culture, working at a "fairly specific problem" that is to some degree unsolved at the beginning and solved at the end. Bales and Strodtbeck present data showing that for groups classified as meeting these conditions, there is a high correspondence between hypothesized and obtained sequences; for groups failing to meet the conditions the correspondence is poorer.

As to the relation between individual and group problem solving, Bales and Strodtbeck feel that their analysis follows directly from the ". . . conditions present in the overt process of social interaction . . . and it may be compatible with any number of theories regarding the mental processes of individual problem-solving" (p. 488). Elsewhere, Bales (1950) states that individual problem solving ". . . is essentially in form and in genesis a social process; thinking is a re-enactment by the individual of the problem-solving process as he went through it with other individuals" (p. 62). He suggests that perhaps the best model we have for understanding individual problem solving is the interaction which occurs in group problem solving.

Thus, whereas some authors (e.g., Dashiell, 1935) suggest using individual problem solving as a model for analyzing group process, Bales suggests the opposite — that group process be

used as a model for individual thought process. Undoubtedly both views have some merit. On the one hand, the individual acquires his thought and judgmental habits largely through interaction with other persons. It is by no means entirely fanciful to suppose that he "internalizes" certain problem-solving functions that are originally performed for him by others. For example, he may internalize a "critic" role in the sense of learning to apply to himself the same standards and rules of critical evaluation that another person has previously manifested in interaction with him. He may also adopt methods of compromise and conflict resolution that he has observed in use by opposing participants in social interactions On the other hand, group problem solving is of necessity mediated by individual thought and, although much of adult thought is permeated by internalized social influences and adjustments to anticipated social reactions, these probably represent elaborations of more elementary and primitive associational and thought processes.

In any case, neither of the above views should lead one to conclude that the individual and group problem-solving processes are mere replicas of each other — that the group is simply a large person or that the individual is a small group. As we shall show throughout this chapter, group problem solving involves individual problem solving, *but much more*. The "extra" does not refer to a "group mind" or a magical "plus" which arises out of groups. Rather, it refers to the simple fact that the thinking done by a group member occurs in a different context from that done by the "isolated" thinker. Because it occurs in communication and interaction with other persons, the products of the group member's thought may be unpredictable from the observation of solutions obtained in isolation. In addition, reaching a group solution requires an agreement process which affects the total outcome but which itself is partly a function of the unique social organization of the group.

This seems an appropriate place to reiterate briefly the sense in which we use the term "group problem solving." We do not mean that the group *per se* solves a problem. Rather, this term is simply a shorthand way of stating that the members of the group have confronted and solved a common problem. In brief, group problem solving refers to the *psychological* and *social processes* whereby individual solutions are created, communicated, and eventually assembled into a product that represents the group. But let us be clear that we are denoting a *social product* when we speak of the "group solution" and not, as do Perlmutter and de Montmollin (1952), a ". . . psychological product of the group considered as a group" (p. 762). These authors arouse strong reminiscences of the "group mind" conception when they refer to ". . . group-perceived products, group-learned products, and group-memory products" (p. 762). They support this usage by an appeal to Lewin's view that groups are appropriate entities for investigation because they can be shown to have properties or constancies of their own. However, to argue that there exist group-*qua*-group properties does not necessarily lead to the conclusion that groups have the *same* properties (e.g., intelligence, memory) as individuals. It may be true that at a certain level of generality, the same conceptions can be applied to both, for example, such Lewinian concepts as "part region," organization, or "structural relations among parts," "change in state or position," "boundary," and "state of equilibrium." But these are general concepts that have a wide range of application, and the specific phenomena to which they are coordinated in the study of individuals may differ considerably from those in the study of groups. Hence, while a term like "group learning" may be acceptable as a shorthand reference, that to which it refers must be kept clearly in mind, viz., products perceived and learned by individuals and, after an interchange, agreed upon as representing the group.

The foregoing should not be construed to mean that the comparison of individual and group problem solving is necessarily an unfruitful investigative procedure. The values of any sort of comparison lie in highlighting those unique properties of one or the other set of events that do not stand out when the events are viewed in isolation. If guided by considerations of theoretical relevance, comparison of individuals with groups in their problem-solving processes can throw into relief some of the aspects of each that are most important in understanding their end products. However, as we shall see in the next section, many such attempts at this comparison have yielded obfuscating and equivocal, though often tantalizing, results.

Experimental Comparisons of Individual and Group Problem Solving

When comparing individual and group solutions, the first obvious possibility that suggests itself is that any difference between them may be accounted for simply on the basis of the greater number of independent judgments which enter into the group solution.

What is referred to here is not a social psychological phenomenon but merely a matter of enhancing validity of judgments by pooling, where the greater the number of competent judges the greater the validity of their combined judgments (assuming relative independence among the judges). As has been shown in the studies by Gordon (1924), Stroop (1932), and Preston (1938), this factor clearly gives groups an advantage over individuals, when the task situation is one where each group member is making the same kind of judgment about the same event. The only limitation is that mentioned by Preston, where the average individual's judgments correlate zero with the criterion (true) values. In this case, pooling does not enhance the accuracy of the estimates. Related findings are those of Farnsworth and Williams (1936) who studied the effects on pooled judgments of systematic biasing by means of a size-weight illusion Mean individual judgments diverged markedly from the true value of the event judged. Klugman's (1945) study of pooled judgments of the quantity of familiar and of unfamiliar objects contained in bottles showed similar results. A minimum basis for making a valid judgment must exist before pooling leads to increased accuracy.

Do we have any evidence that group superiority, if it occurs, is ever attributable to anything more than pooling? To try to answer this question, let us first look at two studies of Gurnee (1937a,b), where the issue is in doubt.

In the first of these (1937a) 42 individual subjects and 12 groups, each with about 10 members, performed 6 learning trials on a bolt-head maze equipped with lights to indicate whether or not a stylus is on the correct path. At each choice point the groups voted on the path to be followed, a plurality of the members being required for decision. The vote was taken by acclamation, with the experimenter calling for a show of hands if in doubt about the voice vote. On the seventh trial all subjects performed individually. From trials 2 through 6 the groups made significantly fewer errors than did individuals. However, on the seventh trial members of groups, now working individually, made almost as many errors as those who had been working individually throughout the experiment. Hence it appears that although the groups performing as groups were more accurate than individuals, group members showed no evidence of superior learning in their subsequent individual performances. Gurnee favors an interpretation of the group superiority that is essentially statistical. He suggests it may be due to the *scattering* of individual errors. If the individual errors of group members are uncorrelated, then majority opinion can be correct on all of the choice points while individuals make errors This is essentially a statistical matter of pooling judgments with uncorrelated error. Unfortunately, the result is also subject to a number of alternative explanations. First, the groups spent about twice as much time as did individuals on each of the trials. Hence, it might be expected that more considered judgments would be delivered. Second, the acclamation method of voting presents the possibility that the more confident group members, who may also be the more correct ones, contributed more heavily to the decision than did the less confident.

Some support for the last interpretation comes from Gurnee's second study (1937b). Three tests were used, two of them of the true-false type and one with three-alternative items. The tests were administered first individually, then by collective judgments made in accordance with parliamentary practice. The group score derived from the majority vote was always significantly higher than the average individual score. In fact, the group score equalled or approximated the best individual score on each of the three tests. The data appear to show that the group score is superior to mere pooling, i.e., the score obtained by using the majority of independent individual responses on each item. (The pooled score, in turn, is superior to the average individual score, supporting Gurnee's idea that distributed individual errors cancel out by using "majority vote.") However, this issue cannot be resolved in the present experiment, since collective judgments were always made subsequent to individual judgments, which leaves open the possibility of interpreting part of the collective superiority in terms of longer experience with the test materials (i e., "learning" or more opportunity for reflection and remembering). Gurnee believes the data indicate the superiority of group decision over and beyond pooling, and he attributes it to the process of voting. He observed that the correct subjects were apt to respond more quickly and vigorously and that the doubtful subjects delayed until they observed the votes of the more vigorous responders. He also noted that not all subjects voted when the system of acclamation was used.

Let us now proceed to two studies that deal more directly with the issue of whether pooling effects are always adequate to account for group superiority. The first of these is an experiment reported by Timmons (1939, 1942). The subjects individually read some study materials

concerning whether or not (and how) Ohio's system of giving paroles to prisoners should be changed. Immediately before and after reading the materials, the subjects individually ranked five given solutions to the problem. On the basis of the postreading rankings, 67 experimental groups of four members each were paired with 67 four-man collections of control subjects Next, each of the experimental groups discussed the problem and made a group ranking of the five solutions. Finally, the members of the experimental groups again individually ranked the five alternatives. Instead of discussing the problem, the control subjects individually restudied the materials and finally, again as individuals, ranked the alternatives. The criterion of "correctness" was taken to be the ranking made by a group of informed experts.

If statistical pooling were adequate to account for the degree of accuracy attained by the *group judgments* following discussion, then no difference should be observed when the mean accuracy of the 67 group rankings is compared with the mean accuracy of the 67 composite scores (obtained by averaging individual judgments or using majority opinion, or both) for the collections of control subjects. In fact, though, the group judgments following discussion were significantly superior in accuracy to the composite judgments of the collections of noninteracting control subjects. Thus, this study suggests quite strongly that the process of group discussion can contribute something over and beyond the effects of statistical pooling.

Another study bearing directly on the relative contribution of pooling to the accuracy of group judgments was performed by Thorndike (1938a). Twelve hundred college students were formed into groups of 4, 5, and 6 members. The tasks presented involved the selection of one of two alternatives. the better of two poems, the more favorable of two attitudes, the truth or falsity of various assertions about geography, economics, current events, etc The subjects first made individual judgments and then discussed each of the issues for a maximum of about 10 minutes, under instructions to try to come to a correct unanimous decision. At the conclusion of each discussion, if unanimity was not reached, a vote was taken to determine the members' judgments of the correct alternative. Thorndike presents his main results in terms of the mean percentage of the problems for which the majority of the group chooses the correct answer. The mean percentage after discussion shows a statistically significant increase over the mean percentage prior to discussion. Although the reader may regret the absence of control subjects in the design to detect possible effects of restudy or reconsideration, this study appears to support the conclusion of Timmons: that group discussion can lead to a greater increase in accuracy than can be accounted for by pooling alone.

Thorndike's study presents some data that suggest the nature of this contribution resulting from group discussion. He observed a marked tendency for his subjects to change their individual decisions in the direction of the majority opinion of the group and also in the direction of the correct alternative. Part of the latter tendency he finds due to higher confidence on the part of subjects originally holding the correct view. Such subjects are found to swing the decision their way more frequently than other members.

Shaw (1932) presents further evidence indicating the superior quality of group solutions and analyzes some of the social processes underlying this superiority. [Since this study, along with several that follow, is reported in some detail by Dashiell (1935), we shall deal with it only very briefly.]

Individuals and groups of four worked on a number of problems. When compared on speed of performance, the data were inconsistent; but not so when compared on accuracy. The groups produced a substantially greater percentage of correct solutions to the problems. Observation of the group process revealed on one problem, for example, that although twice as many correct as incorrect suggestions were made, the groups rejected five times as many incorrect as correct suggestions. Further, the initiator rejected only one-third as many of his own incorrect suggestions as did other members of the group. Shaw comments: ". . . one point of group supremacy is the rejection of incorrect ideas that escape the notice of the individual when working alone" (p. 502).

Two studies of Dashiell (1935) appear to document this same point. In the first of these Dashiell compared original witnesses to an apparently genuine accident, individual jurymen after hearing the witnesses, and, after discussion, the jury-as-a-whole. The jury report, which was restricted to those points on which the jurors unanimously agreed, was less complete than any individual report but more accurate. Thus, although the requirement of unanimity apparently reduced the number of items accepted for the jury report, it reduced the number of errors even more.

In a subsequent experiment Dashiell found that, after discussion, in each of 24 juries the group scores (derived from agreed-upon answers

to an interrogatory questionnaire) were superior in accuracy to the average scores made by the component individuals before the discussion. Of 109 individuals, only 14 equalled or exceeded the group score of his own group (Unfortunately, in neither of these studies is there any check on whether individual contributions changed, erroneous contributions were rejected in the discussion, or the errors merely cancelled out one another.)

Another study that might be mentioned here also attests to the superior accuracy of groups Klugman (1944) studied 68 pairs of school children. Members of a pair were matched for sex, skin color, grade in school, age, and IQ. The Otis Arithmetic Reasoning Test was administered, Form A and Form B being used on successive days. Half of the subjects were tested in pairs on the first day and individually on the second day, with this order being reversed for the remaining subjects. When paired, they were permitted to talk freely and required to arrive at a single answer to each question. The results appear to substantiate Klugman's conclusion that ". . . when paired, children earned reliably higher scores and took a significantly longer time" (p. 97).

Finally, a recent study by Perlmutter and de Montmollin (1952) adds support to Gurnee's (1937a) evidence that "group learning" is superior to that of individuals. Twenty groups of three persons each were required to learn two equivalent lists of nonsense words. One list was learned while each person worked individually but in the presence of the other two. The other list was learned while the three persons worked together as a group, with the requirement that they reach accord on each word before it was adopted to represent the group. In the latter condition, the subjects were not permitted to assign specific parts of the list to specific individuals. The results reveal that on all five trials, the average group recalled more words correctly than did the average individual. In fact, the group recall scores tended to be equal to or better than the best individual scores. The experiment was arranged so that some subjects worked first in groups and then individually. For others, this order was reversed. Comparisons of the results for the two orders suggest that the experience of working in the group had some sort of practice effect which facilitated later individual learning. But in terms of group scores, the initial individual learning experience did not seem to affect subsequent performance as groups. This may mean that in developing an effectively functioning group difficulties are encountered which are of sufficient importance to mask any gains resulting from individual practice effects An apparent improvement in the efficiency of the groups is indicated by an increase in rate of recall from the first to the fifth trials. In agreement with Shaw's observations noted earlier, these investigators describe processes of rejection and evaluation as operating within the groups, the result seems to be that groups adopted fewer invented words and fewer words representing modifications of those in the lists.

In terms of our present comparison of individual and group products, it is not clear just what factors account for the superiority of groups obtained in Perlmutter and de Montmollin's experiment. They observe that in spite of occasional instructions to the contrary, subjects working in groups may have developed an implicit assignment of certain words to particular members The data also leave open the possibility that some of the group scores could have been equalled by a simple summation of the various words learned by the individuals working independently. That the result could not be due entirely to improved individual performance under group conditions is shown by the individual recall data which were obtained immediately after the group recall procedure. Few individuals equalled their group scores and in no case did they surpass them.

Theoretical Analysis of the Factors Uniquely Affecting Group Solutions

The foregoing studies have compared pooled individual solutions (judgments, opinions) with group solutions arrived at by some process of discussion and group decision or vote. It is apparent that the group solutions differ from the pooled individual solutions. In most of the instances reviewed above, this divergence is in the direction of superiority of the group products. It is clear, however, that group solutions are not always superior. Furthermore, as careful analyses of products are made, it seems likely that qualitative discrepancies will appear which are not capable of being described on a simple dimension of "goodness" of solution.

The question now arises as to what accounts for the unique properties of group solutions as compared with pooled individual solutions. There are two logical possibilities, not mutually exclusive, either or both of which can account for this uniqueness. As a result of the group problem-solving situation and the interaction process involved, (1) *the individual solutions*

available for pooling or combination differ from the individual solutions derived under conditions of independent problem solving, and/or (2) *the individual solutions are combined or assembled in a manner not reproducible by simple averaging, use of majority vote, or similar methods.*

In the present section we shall speculate a bit about the social processes and psychological phenomena which these two logical possibilities suggest. The subsequent parts of the chapter will be devoted largely to the concrete research evidence bearing upon the factors and relationships which we shall postulate here.

THE SOCIAL MODIFICATION OF INDIVIDUAL SOLUTIONS

Here we wish to explore the possibility that the individual products available for incorporation into the group product are modified by the problem-solving situation and process.

Modifications produced by direct social influence. Perhaps the most obvious as well as the most important way in which individual solutions are modified is through the direct social influence exerted in the course of the group discussion. An example of change in individual opinions as a result of discussion is provided by Timmons' (1939) investigation, described earlier. As a result of the group discussion of the parole problem, the subjects in the experimental groups were significantly more accurate in their subsequent individual rankings than were the control subjects, who had merely restudied the parole problem. It was also found that the subsequent rankings made by individuals who had participated in the discussion groups correlated fairly highly with the rankings agreed upon by their respective groups (i.e., the rankings constituting the group solutions to the problem). Thus it is clear that not only did individual judgments change, but they changed in the direction of the group consensus. The importance of this phenomenon for understanding group solutions is obvious: If persons change their opinions as a result of interaction, then the individual solutions available for combination into the group solution will differ from what they would have been if there had been no interaction.

As to the process by which such opinion changes are mediated, several generalizations can be made. To begin with, the views held by a given person will be influential only if they are communicated, either by him or by someone else, to others within the group. In other words, shifts of opinion need be analyzed only with respect to those ideas and views which are expressed in some manner. This immediately suggests that an analysis of the influence process must start with an investigation of the factors which act to facilitate or inhibit communication. In the terms used by Festinger (1950), what are the forces to communicate and what are the restraining forces against communication?

Once a person communicates his point of view, his effectiveness in producing covert changes in other persons' opinions depends upon a variety of factors. In the analysis of influence transmitted through mass media, it has been emphasized that for a communication to be successful the recipient must attend to it, comprehend and learn its contents, and accept them (cf. Chapter 29). Although the attainment of these stages of influence may present somewhat different practical problems in direct interpersonal influence, they seem to be as essential here as in mass communications.

To simplify the discussion, consider member *A* communicating his solution or judgment to member *B*. Since it is essential that *B* attend to *A*, influence will be facilitated if *B* has some tendency to orient himself toward *A* or if *A* has abilities, mannerisms, or striking characteristics which elicit attention. Likewise, at the comprehension stage, influence will be facilitated by *A*'s skill at expressing clearly his ideas, and/or by *B*'s verbal and intellectual ability.

Assuming the attention and comprehension requirements are fulfilled, the extremely complex problem of acceptance is encountered. In some instances, acceptance will depend largely upon the intrinsic properties of *A*'s solution and the arguments with which he supports it. For example, the solution may interact with and fit into *B*'s prior cognitive structure so as to produce a new structure more tenable and satisfactory than the old one. The new cognitive structure may take account of more factors, be simpler, or more aesthetic, etc. In other instances, *B* may be able to test or prove the suggested solution by logical processes. These possibilities suggest that the individual may sometimes change his opinion after simply hearing other opinions, regardless of their source. It has been held (Dashiell, 1935) that if the person is aware of the great variety of solutions or judgments possible in any given situation, he will be better able to reach a correct judgment. If this is true, the simple fact of making public the opinions held by various members would provide the basis for an improvement in the average quality of their contributions. Relevant to this process would be

any factor such as group size or permissiveness which affected the number and range of ideas made public within the group.

When the problem at issue requires opinions and judgments which cannot be validated by logic or by empirical tests, people tend to seek support for their opinions through agreement with their associates. There appear to be at least two general types of relationship between the initiator and the recipient of a suggestion that can function to determine the degree to which the recipient agrees with and accepts the suggestion. In certain instances, the initiator may be viewed instrumentally as a "mediator of fact" by virtue of his perceived expertness, credibility, and trustworthiness. In other instances, the recipient may be motivated to agree with the initiator without regard for his "correctness"; agreement may become an independent motive. The strength of this motive seems to depend partly on the strength of positive attachment to and affection for the initiator. Thus, *A* can produce a change in *B*'s opinions if he is liked by *B* or provides the means whereby *B* satisfies important drives. When the group member has a strong positive attachment to his group and its members, he will tend to conform to the modal opinion expressed in the group. In such instances, the opinion change resulting from discussion may produce a convergence upon the opinion initially held by the majority, as noted by Thorndike (1938a). (Majority opinion may also be effective in the absence of positive feelings for the group. Where no expert opinion is available, the opinion held by most persons may be perceived as the "safest bet.")

Another relationship which may be relevant to the acceptance of the initiator's opinion is that in which the recipient's real or apparent acceptance is motivated by a desire to avoid punishment or unpleasantness in general. *A* is able to deliver punishment to *B* even though *B* has no positive feelings toward him. Thus, a powerless *B* may be physically or socially constrained to the relationship with a punitive *A*. In the case of group membership, *B* may be physically unable to leave the group or may maintain membership merely to avoid dangers that exist outside the group. Festinger (1953) proposes the hypothesis that such relationships can produce overt compliance to social influence but do not lead to covert acceptance of it. Other theories and evidence suggest that certain of these situations, where pressure can be exerted on a person to express an opinion different from the one he privately affirms, do tend to produce covert opinion change (cf. Kelman, 1953; Janis and King, 1953, and Chapter 7 in Hovland, Janis, and Kelley, 1953). However, in the following discussion, we shall consider these conformity-producing pressures primarily from the point of view of the *behavioral* changes they produce.

Finally, no discussion of the factors affecting opinion change would be complete without mention of those determining the degree to which change is resisted. Broadly speaking, resistance stems from the strength of initial opinions, the basis they have in fact, experience, or logic, the person's "anchorage" through loyalty to other groups; and possibly the fact of overt commitment to a given point of view. The amount of change produced in any case may be considered to be a resultant of the strength of influence exerted minus the strength of the resistance to change.

Modifications produced by the social context of individual problem solving. Even in the absence of direct social influence, the group member's problem-solving activity may differ from what it would be if he were working as an independent individual, by himself and for himself. Thus, his motivation and thought processes may be modified by the social context in which he works — by his group membership, the social situation in which the task is presented or decided upon, the presence of others who may be working on the same problem, the eventuality of communicating his product to others, their anticipated social reactions, etc.

Of great importance in determining an individual's effort and concentration on a task is the strength of his motivation to complete it This can be quite different when working for oneself than when working for a group, depending upon such factors as the degree of identification with the group, the amount of responsibility felt for the outcome of the problem-solving process, and the kinds of rewards given for successful task completion.

Also of relevance here are the investigations of social facilitation, which we shall discuss more fully in the next section. These indicate that working in the presence of others who have the same task (or even working with the belief that other persons have the same task) produces variations in accuracy, speed, and quality of output.

A related notion is contained in the suggestion by Bos (1937) that the very act of formulating an opinion or idea for communication to the group leads to a sharpening and refining of the idea. Thorndike (1938a) also comments that in a problem-solving group, individuals appear to think about an issue more carefully

and more cautiously before announcing an opinion to the group. Of course, the latter suggests the existence of restraints in the communication process, which might seriously modify the assembly of individual solutions. However, Bos and Thorndike appear to agree that even prior to communication the group member's covert opinion undergoes some change toward greater sharpening and clarity.

A series of experiments by Bos (1937) may be taken as illustrating the effects of a hypothesized process of sharpening and clarifying, not because her research provides a test of the hypothesis but because she interprets much of her results in these terms. In her first experiment Bos studied 68 children 11 to 13 years old. One group of subjects worked first individually and then after "some weeks" repeated the same tasks in pairs. A second group began as individuals and was retested individually. The third group began work in pairs and later worked as individuals. The tasks set for the children involved the identification, from sets of reproductions, of paintings done by the same painter. Children working in pairs were encouraged to talk freely. The experimenter observed informally.

In her second experiment, Bos studied 43 younger children (ages 6 to 9), this time eliminating from her design the treatment in which pairs preceded individuals. The tasks were to arrange five sets of pictures in such a way that each series conveyed a sensible story. Again paired children were encouraged to interact and the process was observed. In both experiments children in pairs were substantially more accurate than as individuals. Part of this superiority Bos credits to the resistance offered to vague ideas by the demands of communication. She also observes, however, that this process occasionally has a negative effect, as when a person attains a correct insight based on a general intuition which he finds difficult to communicate in a rational, persuasive way.

THE COMBINATION OR WEIGHTING OF INDIVIDUAL SOLUTIONS

The second possible way of accounting for the unique properties of group solutions as compared with individual solutions is that the latter are combined and weighted in a complicated way in arriving at the group product. The focus here is upon the processes of proposal, compliance, concession, compromise, and rejection whereby some sort of group decision is reached. These processes affect the outcome only if the discussion preceding the decision fails to produce covert agreement among the various members as to the most appropriate solution. If the discussion produces complete consensus at the covert level, the decision process usually can have only one outcome, however it proceeds (An exception to this generalization is the state of "pluralistic ignorance," where the covert consensus so sharply violates some cultural norm that group members will neither express their covert opinions nor even expect one another to hold them.) We shall consider, then, instances where at the time of deciding upon a group solution there are differences among the members with respect to what they privately believe to be the best solution.

To arrive at a group solution, there must be a presentation of alternatives and a process of decision in which one alternative is selected as the group's response to the problem under consideration. Under the conditions specified in most experimental studies, this decision involves the achievement of some sort of agreement which is mediated by the proposal of solutions and formal or informal voting upon them. In this decision, the *overt* proposal and the *overt* vote are crucial. The unexpressed and unsupported covert opinion, no matter how strongly held, is not recorded in the outcome. Furthermore, only if there are discrepancies between overt votes and covert opinions does this aspect of the total problem-solving process contribute to the unique properties of group solutions. If all members vote and if they vote in accordance with their private opinions, the group vote can be determined simply by summarizing their individual private solutions. However, if persons with one opinion support a different one or fail to vote *or* if persons without an opinion take a definite stand, then the group product is not related in any simple way to individual covert opinions. In other words, during the decision process persons who fail to act in accordance with their private opinions (by withholding their vote when they have some opinion, voting when they have none, or voting for an alternative other than the one they privately think best) give extra weight to others' opinions at the expense of their own.

To understand this process of weighting it is necessary to examine factors which make for discrepancies between covert and expressed opinion. Sometimes these discrepancies are to be traced to external social pressures, on other occasions, they are due to self-imposed restraints which we shall refer to as "self-weightings." In particular instances, it may be difficult to locate the cause of a given discrepancy, but in prin-

ciple it seems desirable to distinguish between externally initiated weighting (direct social pressure) and internally initiated (self) weighting

Weighting produced by direct social pressure. One of the obvious situations in which expressed opinions diverge from covert ones is when external social pressures are brought to bear upon behavior. Festinger (1953) has analyzed the relations between a group and its members which lead on the one hand to covert acceptance of the group's norms and, on the other, to mere overt compliance with them. He suggests that overt compliance without covert acceptance occurs when (a) the member is constrained to membership in a group by physical or social restrictions or by external dangers, but (b) the group does *not* provide positive satisfactions or mediate positive goals for him Thus, the group or its representative is able to produce behavioral conformity through punishment or threats of punishment but the recipient has no basis for positive feelings toward the group and no desire to be like its model members.

Members who stand in this relation to a group can be expected on occasion to support solutions or judgments which they do not privately accept. They will support what they believe to be the opinions held by the majority of the members or by the most powerful members, i.e., those who are most influential in setting the group standards and in applying group sanctions. In general, the discrepancies between private opinion and public vote will be maximal in groups where membership results from restraints and external threats and minimal in groups where membership is characterized by positive satisfactions. In the latter groups, a high degree of covert consensus will develop in the course of the discussion and, as noted before, the group decision will be a relatively simple reflection of this consensus. In the former groups, the greater the power differential among members, the greater will be the tendency toward differential weighting of their private opinions in arriving at the group solution.

The process by which compliance occurs need not involve explicit threat or pressure. On the basis of prior experiences of pressure, a person may express opinions he expects more powerful members to hold. But frequently the less powerful member waits for others to express their opinions or follows closely the social reactions to others' contributions and to his own trial balloons.

Social reactions to various proposals — reactions of rejection, approval, or toleration — can play an important role in the success of a problem-solving group The high quality of group products has been attributed to the "corrective" responses made by the group to various contributions and proposals (Shaw, 1932). In this process the group is reported to reject, modify, and correct at least some of the ill-conceived and erroneous conceptions of its members. Obviously, this process, in part, results in changing the initiator's or other persons' opinions or solutions. At the same time, however, such social reactions may cause a person either to withhold his opinion (without necessarily changing his mind about it) or to publicize it even more strenuously. In either case, the social reactions may modify markedly the weight his individual opinion carries in the final group decision. Whatever the nature of this process, as long as the social response is cued to the contribution and not to the contributor (his status, friendliness, etc.), its result seems to be a reduction of errors in the final group product.

Self-weighting. On certain occasions, a member may voluntarily withhold his vote or support a position not his own. Gurnee's investigations suggest that this may be due to the degree of confidence a person feels in his private opinion. Consider first his study of maze learning by individuals as compared with groups. At the end of the learning series, the groups performed much better than their individual members. Therefore, the superiority of the groups cannot be accounted for by improvement in individual solutions as a result of the group problem-solving situation or discussion. Rather, the superiority of the groups seems attributable either to a cancelling out of individual errors or to the voting process. The acclamation method of voting constituted the means by which individuals' ideas were combined into the group decision at each choice point in the maze. This method provides the opportunity for people who are most confident to carry greater weight in the group vote than those who are less confident. In his second study, Gurnee explicitly attributed the superiority of his groups to the process of voting. He observed that correct subjects were apt to respond more quickly and hence carry more weight than the more doubtful subjects. Thorndike also found that higher confidence on the part of those subjects initially holding the correct views accounted for part of the discussion-mediated shift toward more correct answers.

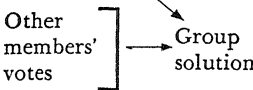
These results suggest a *self-weighting* process whereby individuals contribute or withhold their suggestions according to the degree of

certainty they feel about them. (We may not, of course, always find a positive relationship between confidence and correctness, such as apparently existed in the foregoing studies.) It may be hypothesized that this tendency toward differential self-weighting would be most marked in groups where there is great heterogeneity among the members in their ability or expertness on the problem at hand.

A variety of other factors may also affect the weight a person gives his private opinion in voting for the group decision. There may be personality predispositions related to self-confidence which lead certain individuals consistently to place great or little weight upon their own opinions. The perception that others will be more affected by the decision than himself might be expected to heighten an individual's tendency to permit their opinions to carry the decision. For example, if a particular member has a very great stake in the quality of the decision (e.g., he must act upon it, it determines his future success), other members may defer in their voting to his opinions. Other self-imposed restraints against expressing one's private opinion may arise out of desire to avoid hurting the feelings of a friend who holds an opposite opinion. Similarly, if a high premium is placed on group unity or if schism within the group would place its existence in peril, members may suppress their private feelings and at the behavioral level present a united front

Finally, it should be noted that the process of voting can be formalized to minimize differential weighting tendencies, whether self-imposed or due to external pressures. Everyone in the group may be required to vote simultaneously, privately, and anonymously, with all votes being given equal weight in the decision. Even this type of procedure, however, may fail to eliminate all sources of differential self-weighting. "Game" considerations, as described by von Neumann and Morgenstern (1947) may frequently lead to distortion of covert preferences, as for example in the common practice of supporters of a minor party who actually vote for a major party candidate rather than "throw away their votes."

SUMMARY

In brief, it appears that a variety of factors may affect the group product and account for its unique character as compared with a simple pooling of individual products. These factors can be analyzed in terms of whether they affect (1) the individual solutions, judgments, opinions, etc., which are available to be combined into the group product, and/or (2) the actual combination or voting process in which individual contributions are "weighted" in some way to determine the final group outcome With regard to the first, modifications in individual solutions can be traced to (a) the operation of direct social influence or (b) the social context in which the individual works on the problem. With regard to the second, the differential weights given individual solutions are reflected in discrepancies between private opinions and public votes and these discrepancies are attributable to (a) the operation of external social pressures or (b) self-imposed restraints in voting behavior.

Observation of the problem-solving process in natural informal groups reveals that all of the above aspects of the process frequently proceed simultaneously Often, members are considering the problem for the first time even as the discussion goes forward. The "voting" process usually goes on implicitly during the discussion — persons indicate their position and make it clear how they will vote. After a thorough airing of opinions, a formal vote is often unnecessary. However, this typical collapsing and overlapping of the various aspects of the process does not mean that factors shown to affect the total outcome need remain unanalyzed as to their more specific effects.

To determine which aspects of the total process are affected by any given variable (in this instance, *group size*), we propose the scheme of procedure and data analysis outlined in Fig 1. To study only the relative effects of large and small groups, the first two columns of the scheme would suffice. The investigation begins by obtaining independent judgments or opinions after a period of individual consideration. Assuming that no person has prior familiarity with the problem, the data obtained at 1 and 1′ represent the solution attained by individuals while operating as group members and in a specific social context. Differences between 1 and 1′ indicate the effect of size upon the social context relevant to individual problem solving. (If he desires, the investigator can estimate the effects of the social context in either a large or small group as compared with none. For this purpose, he would have some subjects work on the problem alone, as individuals, and compare the data at point I with that at 1 or 1′.)

Following the recording of initial private opinions, the groups are permitted to discuss the problem. At the conclusion of the interaction, the investigator can determine, by appropriate interview techniques, covert individual opinions (2 or 2′). He can also note

FIGURE 1.

PROCEDURE FOR ANALYZING SPECIFIC EFFECTS OF GROUP SIZE ON GROUP PROBLEM-SOLVING PROCESS

PERSON WORKING AS A GROUP MEMBER		PERSON WORKING AS AN INDIVIDUAL
SMALL GROUPS	LARGE GROUPS	
Independent thought	*Independent thought*	*Independent thought*
1. Initial private opinion	1′. Initial private opinion	I. Initial private opinion
Group discussion	*Group discussion*	*Further independent thought or other interspersed activity*
2. Final private opinion	2′ Final private opinion	II Final private opinion.
3 Overt vote for group solution	3′. Overt vote for group solution	
Other members' votes → Group solution	Other members' votes → Group solution	

the manner in which each person votes or openly contributes to the group decision (3 or 3′). A comparison of the opinions at 1 with those at 2 (or 1′ vs. 2′) indicates the contribution to the group decision of changes in individual opinions resulting from the group discussion. (To isolate the effects definitely attributable to social interaction, it may be necessary to take account of I vs. II, which indicates the changes produced by further individual thought or by some other form of interpolated individual activity.) Finally 2 vs. 3 (or 2′ vs. 3′) indicates the contribution to the group decision of the voting process with its social pressures and self-imposed restraints on overt behavior. The effects of size on the *discussion* process can be estimated by comparing the changes from 1 to 2 with those occurring from 1′ to 2′. Similarly, the effects of size on the *voting* process can be estimated by comparing the difference between 2 and 3 with the difference between 2′ and 3′.

In brief, by obtaining covert individual opinions before and after group discussion and by observing the opinion overtly supported in the decision process, it is possible to estimate the contributions to the group solution of the various phases of the process and to investigate how other variables affect these phases.

SOME SPECIFIC FACTORS AFFECTING GROUP SOLUTIONS

Let us now turn to some specific factors which have been shown to affect group products or various aspects of the problem-solving process. Few investigations furnish data of the sort suggested above which are adequate to explain the specific effects of factors such as size, type of task, friendship relations, etc. However, we shall attempt to infer from whatever evidence is available the *specific manner* in which such factors affect the quality of solutions arrived at in the group problem-solving process.

SOCIAL ASPECTS OF THE WORK ENVIRONMENT

A most obvious characteristic of group problem solving is that the individuals concerned work in a social environment or context, either in immediate physical contiguity with one another or with the knowledge that others are working on the same task or will in the near future react to their products. If this social context can be shown to affect a person's work or mental processes, it will then constitute one important factor to account for the uniqueness of group problem solutions as compared with those produced by individuals working in relative isolation. Some of the earliest experimental investigations of social influence looked into such effects. Since the earlier work has been summarized by Dashiell (1935), May and Doob (1937), and Doob (1952), and since later work has added relatively little, we shall summarize the literature in this area quite briefly. This by no means should suggest that the important questions in this field have been answered (or

even asked!), but these phenomena, which were once thought to be basic to the study of social psychology, do not enjoy much popularity with present investigators.

Observations have been made of subjects as they work in the presence of (a) passive audiences, (b) other persons doing the same task, (c) other persons competing with the subjects, and (d) an audience which reacts to the subjects. Let us consider these situations in that order

Passive spectators or auditors have been found to have a variety of effects upon the individual's work In Dashiell's summary, there are reported an increase in printing accuracy, an increase in speed in multiplication and analogies problems (but with a loss in accuracy), distraction effects interfering with the memorization of nonsense syllables, and inhibitions and feelings of constraint on word association problems. Several of the studies he mentions suggest an inverse relation between improvement under social influence and initial ability.

A recent study has substantiated the existence of inhibitions or restraints when in the presence of an audience Wapner and Alper (1952) placed 120 undergraduate students of both sexes in a choice situation which involved selecting the one of two words which more closely fitted a given phrase. The experiment was performed in a room with a one-way vision mirror Three variations in audience were used. "None" . . . only the experimenter was present in the room and a curtain was drawn before the mirror, "unseen" . . . the mirror was exposed and the subject was told of its characteristics and that people were behind it who could hear and see what occurred in the room, "seen" . . . the mirror was exposed and the illumination behind it was raised so that the subject could see the audience, who in turn could see him. The audience consisted of a faculty member and three or four students. Measurements of time required to make the choices revealed that, for the first half of the 20-minute session, decision time was shortest for no audience, intermediate for the seen audience, and longest for the unseen. The "unseen" condition produced significantly longer times than either of the other two conditions. No differences appeared for the second half of the experimental session and for all subjects there was a general decrease in decision time from the first to the second half. The authors interpret the longer decision times to reflect an increase in restraining forces against making a decision, this increase being due to the presence of an audience which threatens self-status, ". . . an audience who cannot be seen but is 'out there' watching and listening to the choices being made is indeed more threatening to self-status than an audience whose composition is known" (p. 227). The restraining forces are thought to decline in strength as the person gradually adjusts to the situation

Another situation investigated is that in which other persons are present and working on the same task. A considerable part of the early work on this situation was done by F. H. Allport (1924) and we may consider his procedure as fairly typical The performance of individuals was studied as they worked alone in separate rooms and as they worked together in collections of four or five seated around a table and aware that each was doing the same task as the others Each person was working toward his own individual goal and their various degrees of success were in no way interdependent — they were instructed that they were not being compared and that the test was not a competition Nor were they proceeding in the "together" situation as co-workers on a shared task; this relationship will be considered in the next section on individual motives and group goals.

On tasks such as vowel cancellation, multiplication, and the reversible perspective test of attention, both facilitating and impeding effects of other workers were obtained. In terms of quantity of output, most subjects worked faster when together than when alone. Although there was no consistent effect with respect to quality or accuracy of work, some subjects showed marked increases or decreases while working in the group. Subjects reported an urge toward greater speed produced by the activity of others, but they also reported greater distraction and emotional excitement than when alone

On a free association task, Allport also found an increase in speed in the "together" situation. This social facilitation was greatest during the first minute of the three-minute test and least during the last minute, when the association process had greatly slowed down. He also found an important qualitative difference. when "alone" there was a greater tendency to make personal associations related to definite individual experiences. A possibly related result was obtained when the subjects were asked to write arguments against didactic passages. In the "together" condition, more words were written but the arguments tended to be poorer. Allport comments that, "There appears to be a . . . 'conversationalizing' of our thought in the

social setting . . . When working *with* others we respond in a measure as though we were reacting *to* them" (p. 274).

The "together" situation was also shown by Allport to affect judgmental processes. In judging odors for pleasantness and weights for heaviness, subjects tended to give more moderate judgments in the "together" situation than when alone, i.e., the heavier weights were judged lighter and the lighter weights were judged heavier. The result with weights was subsequently confirmed by Farnsworth and Behner (1931). Again, it appears that while reacting *with* other persons, the person reacts *to* them, in this case by tempering his judgments so as to avoid the possibility of being extremely different from the others.

Allport concluded from his and other studies that: ". . . it is the *overt* responses, such as writing, which receive facilitation through the stimulus of co-workers. The *intellectual* or *implicit* responses of thought are hampered rather than facilitated" (p. 274). Additional evidence of facilitation of overt responses is provided by Abel's (1938) study of retarded 15-year-old girls working with paper and pencil mazes. Trials were either "alone" or with pairs of girls seated opposite each other. By and large, the performance in pairs was superior to that alone. In a second series of trials two months later she found the "pair" situation to have less effect than in the initial series. This is apparently in agreement with earlier results (F. H. Allport, 1920, Sengupta and Sinha, 1926), which indicate that social facilitation becomes less effective as work continues.

That overt responses are by no means always facilitated in the "together" situation is shown by Taylor, Thompson, and Spassoff (1937). They required college students to push a machine nut through a series of grooves with a stylus for four hours. Significantly more work was done when working alone than when in groups, although the persons working in isolation reported more tiredness. This study differs greatly from the others in terms of the size of work sample involved. The long period together affords the subjects an opportunity to get acquainted and to develop a basis for effectively resisting the experimenter's demands. It also raises questions of social effects on fatigue and boredom which have been subjected to experimental study by Burton (1941). He used a procedure whereby a child of nursery-school age was satiated on a peg board, after which another child was introduced to help him finish the game. From subsequent behavior observations it appeared that the persistence of the satiation of the original child was generally reduced. Unfortunately, no control is provided to rule out the possibility that the effect was due to additional pressure exerted by the adult to continue the "game."

In real-life situations involving work of a highly repetitive nature, effects that have been interpreted as "social facilitation" have been observed, these effects consisting of closely similar production curves for employees working together. Wyatt, Frost, and Stock (1934) found workers' rates of output varied with the output of others in the work group. This relationship was particularly close for pairs of workers seated opposite each other, and was somewhat more marked the more visible and the more measurable the output. When individual workers were isolated, the correspondence between their work and that of others disappeared. Large increases in output under conditions of isolation suggest that group standards to restrict output (to be discussed in a later section) may have existed in this situation.

Whitehead (1938) described three pairs of workers who showed parallel fluctuations in their output curves, one pair of which maintained this correspondence even when the members were separated in their working places. It is not clear in these instances to what extent the observed similarity is due to a deliberate coordination and pacing of effort or to an "unconscious" matching of each other's work.

Another effect of the "together" situation is that intra-individual variability in performance is heightened. Mukerji (1940) had boys and girls name capital cities and take cancellation tests. Already trained on the tests, they first performed them in groups of about ten and then in isolation. On both tasks performance was better in the group situation. The fluctuations in performance between successive time intervals were particularly large in the group condition and were positively related to total test score. These two findings might be interpreted to indicate that the group situation tends to heighten motivation to perform the common task but, at the same time, it tends to present distractions which make the task somewhat more difficult. [This interpretation is supported by the introspective reports of Allport's (1924) subjects and by Sengupta and Sinha's (1926) evidence that an increased attentiveness to the task is necessary when working together in order to overcome the distractions furnished by the others.] The result might then be an improvement in performance accompanied by an increase in tension, the latter resulting from working more intensely on a

task which presents more resistance to progress and being reflected in increased variability of performance. Both amount of improvement and increase in tension might be expected to depend upon each person's susceptibility to the group situation and, hence, to be correlated. A possibly related phenomenon was found by Allport (1924) while using tasks requiring cancellation, multiplication, etc. A tendency appeared in the "together" situation for errors to be bunched together on successive problems, while in solitary work they were more evenly distributed. He attributes this to longer lapses of attention and greater difficulty in recovering composure after making errors in the social situation. Whatever the explanation, if a propitious time interval were selected, this phenomenon could yield results similar to Mukerji's.

Finally, we may note the tendency for persons who work more slowly in isolation to be more facilitated by the social situation than persons who work more rapidly in isolation. This "leveling" effect was found by Allport and earlier investigators, who observed an inverse relation between speed of solitary work and the gain produced by the "together" situation. While regression toward the mean due to unreliability of the output measures may account for some of these results, Allport attributes them to the fact that, for the slow worker, the average speed of his co-workers is faster than his own speed, but for the fast worker the opposite is true. Consequently, the slower man benefits from a pacing effect, while the fast man has no pace set for him that is adequate to his capacity. He also suggests that rivalry enters into this result. Results from Hilgard, Sait, and Magaret (1940) indicate the possibility of a somewhat different explanation. Groups of college students worked together on a series of arithmetic problems. On occasion, everyone's speed score was announced and each person was asked to estimate his future performance. Students who received higher scores, whether because of their arithmetic ability or because they unknowingly worked on simpler problems, tended to expect to receive lower scores in the future, and students receiving lower scores expected higher ones. This suggests that in a social situation, individuals may modify their goals in order to minimize the extent to which their performance differs from that of others.

Apparently contradictory evidence appears in Abel's (1938) investigation noted above. Girls of higher intelligence (IQ's ranging from 70 to 79) gained more in the pair situation than did those of lower intelligence (IQ's from 50 to 59). This was true even though the "alone" performance of the more intelligent subjects was better. It may be that "alone" performance is not the crucial factor, but that the degree of motivation in the "alone" situation determines the magnitude of the social effects. A number of the effects noted above (an exception being some of the evidence from Hilgard, Sait, and Magaret) suggest that the "together" situation may typically increase the individual's motives for the task. If his motivation in the "alone" situation is high, little increment can be produced by the social situation. Thus, persons with the least interest in the task itself will be expected to gain the most through so-called "social facilitation." In situations where individual differences in "alone" performance reflect differences in task motivation, we would expect social gains to be inversely related to "alone" productivity, but in cases where "alone" performance reflects ability factors (or, as in Abel's study, where a direct measure of ability is used), no such relation may be expected. Still, Abel's *opposite* results would not be explained.

To summarize thus far — as compared with working alone, working before a passive audience or with other persons at the same task seems to have the following effects:

(a) Greater quantity of work where physical output is involved, suggesting increased motivation to perform the task.

(b) Lesser quantity or quality of work where intellectual processes or concentration are involved, suggesting that social stimuli are able to compete successfully with the task stimuli.

(c) Inhibitions of responses and qualitative changes in the work, which suggest that the person somehow "takes account" of the others as he goes about his work, e.g., he has fewer idiosyncratic thoughts, exercises moderation in judgment, and gives more "popular" or common associations.

(d) Greater variations through time in his output, indicating the presence of periodic distractions and/or the effects of working under greater tension.

(e) There is some evidence that these effects wear off as the person adapts to the social situation.

Finally, before turning to the situations of rivalry and a reacting audience, we should add the very important point that the audience or co-worker may not need to be physically present to have some of the above effects. Dashiell (1935) compared a "together" situation and two "alone" situations — the AD variation where the subjects were truly alone and scheduled at different times, and the AS situation where they

worked in separate rooms but knew that others were working simultaneously and that all subjects were receiving the same time signal. On multiplication and analogies problems, the AD situation produced the slowest but most accurate work, whereas the "together" situation yielded the fastest but least accurate work. The AS situation was intermediate in all respects, indicating that ". . . when working apparently in isolation an individual may actually be under social influences . . ." (p. 1110).

A related topic has to do with the effects of future or anticipated audiences. Burri (1931) had subjects learn pairs of words with the expectation of being asked to recall them either before an audience of four persons or before the experimenter alone. When working under the anticipation of recall before an audience, the time required to learn the list was longer and, in spite of this, the eventual recall was poorer. Grace (1951) varied the amount of information given subjects with respect to the fact that a future "audience" was to be a woman. A number of undergraduates, both men and women, were asked to inspect some objects on a table and then to report what they saw to a person in the next room. Subjects in an "unknown" audience version were told nothing about this "person", subjects in a "known" version were told that they would report to a woman; and subjects in a "briefed" version received additional reminders that they would report to a woman. In all cases, the report actually was made to a woman, who required the subjects to name as many of the objects as possible, with no time limit being given. Some of the objects on the table were "masculine," e.g., an athletic supporter, others were "feminine," e.g., a brassiere; and the remainder were neutral, e.g., sunglasses. Anticipation had no effect on the frequency with which the various items were recalled, but did affect the order of recall. In the "unknown" and "known" audience conditions, as compared with the "briefed" version, male items were recalled earlier and female items later. Since the actual audience was the same for all subjects, this cannot be due to social restraints operating in the face-to-face communication situation, rather it would seem to indicate that the anticipated audience affected the perception and/or learning of the items, so that certain ones were more readily recalled than others. Both this study and Burri's suggest some of the ways in which learning is affected by knowledge of the audience to which the learned product must eventually be communicated.

The situation in which a number of people work at the same task in competition with one another produces many of the same effects noted above for noncompetitive situations In fact, this may indicate that subjects tend to turn any "together" situation into one of rivalry by making comparisons, even though only imaginary ones, among themselves. But the results probably also indicate a heightened motivation in rivalry situations, similar to that indicated above The specific results of the interpersonal rivalry situation, as compared with working together under instructions not to compete, appear to be greater quantity, poorer quality, and greater gains in speed for slower workers [cf. Dashiell (1935)]. The reader is also referred to the next section of this chapter for a summary of Deutsch's (1949a,b) comparison of competitive and cooperative work relationships.

Very little evidence exists on the effects of an audience that reacts directly to the individual's efforts. Laird (1923) gave initiates of a fraternity a series of motor-speed and coordination tests, first in a friendly competition before a passive audience of fraternity members, and later individually before the same audience who now "razzed" the person with discouraging and personal criticisms. His results show a definite loss of steadiness under the latter condition One is reminded here of W. F. Whyte's (1943) anecdotal account of the poor bowling scores made by low status members of the street corner gang when in competition with high status members. Under other conditions, as when bowling with men from outside the gang, some of the low status men made much better scores. This would suggest the desirability of introducing further variations in the social relationships between audience and performer in the experimental study of this phenomenon.

A related area has to do with the effects of direct social encouragement and discouragement. At the time Dashiell summarized some of the literature on this topic, no simple generalizations seemed to cover the apparently inconsistent results; this appears still to be true today. What seems needed is a systematic analysis of the relationship between the recipient and the person providing the encouragement or discouragement, as well as investigation of the other bases the recipient has for evaluating his own efforts. The beginnings of such an analysis, as applied to the study of direct influence, will be described in later sections

The studies above have dealt with effects of social influence on the vigor and quality of behavior which is already under way. Another important phenomenon has to do with social influences in the *initiation* of behavior. We

shall discuss the operation of direct and deliberate influence later Here we wish briefly to consider instances where one person's behavior serves as a model for another's [as in the studies of imitation by Miller and Dollard (1941)] or otherwise operates to initiate another's behavior without there existing any such intention on the part of the first actor. A recent series of studies performed by Polansky, Lippitt, and Redl (1950) and Lippitt, Polansky, and Rosen (1952) deal with this phenomenon, which they have labelled "contagion." The purpose of their research was to determine the characteristics of successful initiators and recipients of contagion and some of the conditions under which contagion occurs. In summer camps for 11- to 15-year-old children, they observed instances of contagion, gave modified sociometric tests, and obtained a variety of ratings from camp counselors.

The typical initiator of contagion was found to be a child who is viewed by others in the group as having high power over his peers and who apparently has sufficient security (gained from a correct perception of his own power position) to act spontaneously. In addition, he is ecologically and socially in a position to communicate with the group and is able and willing to relate himself to the group. An experiment performed in one of the camps suggests further that in a situation of stress where the members of a group have a common need or mood, the most impulsive person — the one who first reacts in a manner representative of the shared feeling — is most likely to evoke a chain of contagion. Under these conditions, power position in the group is of little importance and impulsivity becomes the crucial factor. Recipients of contagion (i e, those from whom behavior similar to that of the initiator is evoked) are characterized by many of the same properties as are initiators. Specifically, they have high attributed power in the group, are the highly impulsive individuals in situations of stress, and have stronger feelings of acceptance by the group. In contrast, susceptibility to direct influence was found to have no relation to feelings of acceptance, but instead was found to be accompanied by high need to belong to the group.

In a laboratory study, Grosser, Polansky, and Lippitt (1951) arranged for a child collaborator to initiate a series of preplanned acts which appeared to be spontaneous to the single child serving as subject. In one experimental situation the two children were resting after work on a dull task; it had not been made clear whether or not they could play with the attractive toys that were at hand. In some instances, the collaborator actively played with the toys and in other instances he was completely passive. As compared with a similar situation in which the subject was alone, the presence of an active collaborator seemed to reduce restraints and release play activity in the subject, whereas the presence of a passive collaborator increased restraints and inhibited play activity.

The research by French (1941, 1944) contains some evidence relating to the spread of emotional states among the members of small groups. Organized and unorganized groups of six men were compared with respect to their behavior in frustrating and frightening situations The eight unorganized groups were composed of undergraduates with no prior acquaintance The eight organized groups were members of athletic teams from college and settlement houses, they had played and, in some cases, lived together and possessed recognized leadership. In the two experimental situations, the members of any given group tended to show very similar amounts of aggression, friendliness, and fear, although from group to group marked differences were observed in average volume of these behaviors. However, individual differences in both frustration and fear were smaller within the organized than within the unorganized groups. French attributes this to the stronger "group atmospheres" operative within the organized groups, these "atmospheres" in turn are said to result from the greater power of the organized groups over their members and from the lower social restraints against communication within the organized groups. In the unorganized groups, the initially high social restraints were found to diminish as frustration and fear heightened the emotional tension among the members, "It is clear, therefore, that the degree of communication between members depends partly on the state of emotional tension of the group" (1941, p. 373). Note that this investigation points to some of the conditions affecting restraints against direct communication, a topic which we shall discuss more fully later.

INDIVIDUAL MOTIVES IN RELATION TO GROUP GOALS

In the preceding section we have referred to the effects of various social situations upon the motivation to perform a given task. We now turn to consider another characteristic of the group problem-solving situation: not only is the individual member working in the presence of others, he is working with them on a common task. Typically, both he and his associates are

working toward a single solution or product for the entire group, and in this effort, the members are objectively interdependent in the sense that any element contributed by a member to the joint solution or product renders it unnecessary that another member contribute that element In brief, there exists a group goal and some, or perhaps all, members are working in a relationship where progress by one person towards the solution or final product facilitates (or constitutes) progress for others toward the goal.

Early studies relevant to the individual's motivation under these conditions dealt with groups that were competing against one another and in which, therefore, the group goal was that of excelling other groups These investigations indicate that the individual's motivation can be quite high when working for the common goal. Dashiell (1935) summarizes evidence suggesting that more work is performed by persons when they are members of groups in intergroup competition than when working alone under no special motivation or under instructions to do their best. In comparison with the work turned out when competing individually against others, the situation of intergroup competition has sometimes been found to produce greater yields, and sometimes smaller ones. In discussing this research, Dashiell raises the very important question: What are the circumstances in which the individual identifies with the group and its success? This problem is also raised by Maller's (1929) evidence that work performed for a shared prize is sometimes more and sometimes less efficient than work for a prize for one's self, the specific result varying with the nature of the group for which the cooperative effort is expended.

It is apparent to even the most casual observer that a person will work for a common goal only if he feels some direct personal gain to be involved or if some indirect satisfaction is derived from completion of the task. This may be stated somewhat more generally by proposing that, in the absence of restraints, activity towards a common goal will ensue if the individual has a drive or motive the satisfaction of which is dependent upon the success of the group in reaching its goal. There are, obviously, many ways in which such motives can manifest themselves. One symptom that has been used in the study of relationships of interdependency is the Zeigarnik effect. Briefly, this means that if an individual has developed motives to do a series of tasks (if, in Lewin's terms, he has tension systems related to the tasks) and if he has completed only part of them, his recall for the incompleted ones is superior to that for the completed ones. Completion of a given task is assumed to reduce the level of tension related to that task and memory is assumed to be activated by whatever systems remain in tension through lack of completion.

The Zeigarnik effect was first applied to the study of interdependency in task completion by Lewis (Lewis, 1944; Lewis and Franklin, 1944). Individual subjects were requested by an assistant to help with a series of tasks. Of a total of 18 tasks undertaken cooperatively, 9 were completed by the assistant, who interrupted the joint effort after several minutes and said, "I'll finish that." The other nine were completed by the subject at the request of the assistant. In another experimental condition, half of the joint tasks were interrupted by the experimenter, who took them away. Whereas in the latter condition, as in Zeigarnik's earlier work, interrupted tasks were recalled better than completed ones, in the situation where they were completed by the co-worker there was no difference between memory for the two types of tasks; recall of partner-completed and of self-completed ones was equally frequent. Thus while interrupted tasks are better recalled than completed ones in cooperative as well as in isolated work, completion of the shared task by one partner may reduce the other's tension related to that task just as much as the latter's completion would. This effect seems to depend somewhat upon the nature of the task, being more true for routine tasks such as adding or copying letters than for more complex tasks such as drawing a map or solving a jigsaw puzzle. But at least under certain conditions, one person's motivation to perform a common task seems to depend upon whether or not a co-worker successfully completes it.

Horwitz (1954) has provided a further application of the Zeigarnik effect in an ingenious investigation of motivation to perform group tasks. Groups consisting of five college women worked together on a series of groups tasks, the memory for which constituted the major dependent variable. Each group represented a sorority and competed with other groups for a high score. During work on the tasks communication among the members was eliminated in order to permit experimental control of the progress of the group and to prevent any worker from knowing her or any other member's contribution to the group's success. At a predetermined point about midway through each task, the members voted on whether the group should complete it or not. For one-third of the tasks the experimenter announced the decision to be

against continuing ("no" tasks); of the remaining tasks, in which the experimenter announced a "yes" vote, the group was interrupted shortly after the vote on some ("Y-I" tasks) and was permitted to complete the others ("Y-C" tasks). Significantly more of the "Y-I" tasks were recalled (56 percent) than of either the "Y-C" tasks (44 percent) or the "no" tasks (46 percent). Thus, it seems that when the group consensus is to complete a task (in this case, the consensus is only an induced perception) the group member develops a motivational system for the group to reach its goal. Upon interruption of the group effort, this system remains in tension and leads to recall of the interrupted task. No tension is involved if the group is reported to vote against continuing ("no" tasks) and the tension that develops with the decision to proceed on the "Y-C" tasks is presumably dissipated upon their completion. Horwitz produces further evidence showing that the development of the individual's motives related to the group goal does not depend upon his having voted for the group to continue the task Even though he may initially vote not to continue, if he subsequently accepts the group decision to continue he will tend to recall the interrupted tasks, which presumably indicates that he has become motivated to see the group finish them.

Deutsch (1949b) provides a detailed analysis of the group problem-solving and interaction process when the members of the group are placed in a situation where cooperative effort is to their mutual benefit. Ten experimental groups were established, each composed of five college students who were participating in the group as a substitute for the regular class work in introductory psychology. Each group met for one three-hour period a week for six consecutive weeks. During each period the groups worked on puzzles and human relations problems. In some of the groups a *cooperative* relationship was created among the members by instructing them that their group as a whole would be evaluated in comparison with four other similar groups and that each person's course grade would depend upon how well the group as a whole was rated. As a contrasting experimental condition, the remaining groups were organized with a *competitive* relationship among the members of each collection. These groups were given the same tasks as the cooperative groups. However, a competitive group was instructed that each of its five members would receive a different grade depending upon his relative contribution to the group's solutions of the various problems. Information about the interaction process and interpersonal feelings in these two situations was obtained by observers and post-meeting questionnaires.

As compared with the competitively organized groups, the cooperative ones showed the following characteristics·

(1) Stronger individual motivation to complete the group task. Also, members reported stronger feelings of obligation toward one another.

(2) Greater division of labor (and greater variability in volume of contribution) among the members. At the same time, they exhibited greater coordination of effort.

(3) More effective intermember communication. More ideas were verbalized, members were more attentive to one another and more acceptant of and affected by each other's ideas. They rated themselves as having fewer difficulties in communicating to and understanding others.

(4) More friendliness was expressed in the discussion and members rated themselves higher on strength of desire to win the respect of one another. Members were also more satisfied with the group and its products.

In brief, the interdependent relationship in which cooperation is rewarded seems to lead to strong motivation to complete the common task and to the development of considerable friendship among the members. The problem-solving process is characterized by specialization of effort along with effective coordination of the separate activities. These undoubtedly reflect a basic property of this relationship — the substitutability of contributions by different members. (A given contribution to the solution by one member is just as valuable to all, at least potentially, as if it were made by another; furthermore, if it is recognized as a step forward, the other members are relieved of the necessity of duplicating it) Finally, this type of relationship is characterized by a highly effective communication process which tends to promote maximal publication of ideas and great mutual influence. As we shall see later, this phenomenon, together with the emergence of strong interpersonal attractions, creates a situation in which high uniformity of opinion is likely to develop. In Deutsch's experiment, there was no clear difference between the two types of groups in terms of the amount of individual learning which occurred during the discussions, but with respect to group productivity the cooperative groups were clearly superior. As might be expected from the pattern of results above, these groups solved the puzzles more rapidly than did the competitive groups and produced longer

and better recommendations on the human relations problems. Thus, a cooperative relationship among members seems to be more conducive to high productivity with regard to the group task than does a competitive relationship.

Experimental conditions quite similar to those used by Deutsch were created by Mintz (1951) Twenty-six groups with 15 to 20 college students in each were given the task of pulling cones out of a bottle. Each subject was supplied with a string attached to a cone in the bottle, which was so constructed that only one cone at a time could be withdrawn without a "traffic jam" In some groups, the subjects were promised individual rewards or fines contingent on their success in withdrawing their cones. In other groups, the situation was described as providing a measure of the subjects' ability to cooperate with one another. The former (competitive) groups produced many jams and consumed much time before completing the withdrawal of all cones. No serious jams occurred in the latter groups and the total times were quite short.

A correlational study by Fouriezos, Hutt, and Guetzkow (1950) sheds some further light on the consequences of member motives that are related to the achievement of purely personal goals Seventy-two actual decision-making conferences, averaging ten members each, were observed and rated on the extent to which member behavior was directed primarily toward the satisfaction of ego-related or "self-oriented" needs without regard to the effect of this behavior on the attainment of the group goal or the solution of the group's problem. The amount of self-oriented need expressed in the conference was found to be negatively related to satisfaction of the members with the meeting, with the decisions reached, and with the chairmanship. Groups exhibiting high frequencies of "self-oriented" behavior were also high in conflict and tended to perceive themselves as less unified. In terms of productivity, although such conferences met for longer times they completed fewer of their agenda items than did groups rated low on self-oriented needs. In short, conferences in which members exhibited low motivation in relation to the group goal were characterized by poor productivity and low member satisfaction. Correlational evidence pertaining to the effects of self-oriented motivation on friendship relations is provided by Haythorn (1953). To study the influence of individual members' behaviors and personalities upon the characteristics of small groups, he used a unique design whereby each of 16 subjects worked only once with each other subject and in five different groups. Among other results, Haythorn obtained evidence indicating an inverse relation between the degree to which a person strives to obtain individual prominence and the amount of friendliness displayed in groups of which he is a member.

The research summarized above suggests some of the consequences of high member motivation toward achievement of the group's goal. Although not all behavioral aspects of this situation have been described, we obtain a picture of a person who puts considerable effort into the group task, thinks about it until he or a co-worker completes it, works and communicates effectively with his colleagues, and achieves a sense of satisfaction from the group process and progress From the viewpoint of the group product, these sentiments and behaviors of the member augur well for group output; other things being equal, quantity and quality of output seem to depend on the degree to which members are concerned about the shared goal rather than their more private goals

Given these outcomes of individual motivation to achieve the group goal (sometimes referred to as "acceptance" of the group goal or "identification" with the group), in what circumstances does this sort of motivation develop? In short, under what conditions does the individual member accept the group goal?

Some of the studies of group decision performed by Lewin's students suggest a general answer to this question, and at the same time they provide additional evidence as to the effects of member acceptance of group goals. Let us now briefly consider the most relevant studies. [Cf. Lewin (1952) for a more complete discussion of the group decision investigations. Those studies not summarized here deal mainly with changes in individual opinions and behavior, mediated by specific social situations. They have little or no bearing on the goals of small groups. To enter this general area of individual changes which are produced by various social situations, which includes not only what is conventionally understood as group-decision research but also the literature on individual and group psychotherapy and the research on discussion versus lecture methods in teaching, would take us further from our central focus of group problem solving than space permits.]

Bavelas (reported in Maier, 1946) used a group decision method to increase the output of a group of sewing-machine operators. These workers were paid on an individual piecework basis with a standard of 60 units per hour set by a time and motion analysis. A group of the

operators held three weekly meetings with the plant psychologist to decide on definite production goals to be attained within a certain time. Presumably as a result of the series of decisions, productivity increased to almost 90 units per hour and stabilized at that level Meanwhile the total plant production was around 58 units. Two other work groups also had three weekly meetings with the psychologist at about the same time and received attention and friendly encouragement from him but did not make group decisions in regard to a production goal. These groups showed no tendency to increase their production and continued at around 58 units per hour. Furthermore, the groups did not increase their output when simply reassured that such an increase would not lead to a change in piece rates or standards.

Coch and French (1948), also working in a factory setting, studied the effectiveness of different methods of introducing job changes. It was plain before beginning the study that the workers strongly resisted changing jobs and working under new piece rates. However, such changes were frequently necessary because of the demands of the business. This resistance to change seemed to manifest itself in informal group standards to restrict production whenever a new piece rate was introduced with a transfer of jobs. Using groups of workers doing roughly comparable work, the following methods of introducing job changes were used

(a) Total group participation in planning change: all the workers involved in the change learned the new operation, gave suggestions for eliminating unnecessary work, and served as subjects in the time and motion study.

(b) Representative participation in planning change: several workers, chosen by the group, went through the above steps and then trained their associates on the new method.

(c) Control method: as was customary before the experiment, the change was planned for the workers and they were told about it at a meeting.

The production curves following these procedures were strikingly different. At the time of changeover, the control group exhibited the considerable drop and very slow recovery in output which had been characteristic of prior transfers. Both participation groups showed an initial drop in production but their recovery rates were far faster than that of the control group. In this respect, the total participation method was somewhat superior to the representative method. In addition, in the participation groups fewer workers quit after the transfer and less aggression was expressed towards supervisory personnel and time-study engineers Very similar results were obtained in a second experiment two and one-half months later when a second transfer was necessary for the original control group and when the total participation procedure was used, the superiority of this method of change was again apparent

The results both of Bavelas and of Coch and French require at least some mention of group norms, a topic that we shall discuss more fully in a later section. The problem in both cases was essentially one of gaining member acceptance of and adherence to standards of behavior that were beneficial to the total business but were initially resisted by common agreement among the members of work groups. The implication of these studies is that under certain conditions, the new standards are more readily accepted when the individual participates in setting them than when they are introduced by fiat or with exhortations and assurances

That the same general principle probably applies to producing member acceptance of group goals is indicated by Willerman's (1943) early investigation of the group-decision method. In eight college dormitories at meal time, a student proctor read a letter from a university official, the general purpose of which was to increase the consumption of whole-wheat bread in the dormitories. In four of the groups, the letter suggested a group decision and the proctor asked for a discussion of the proposal If the group agreed to cooperate, he then asked the members to decide how much they would increase their whole-wheat consumption for the following week. In the other four groups, the letter merely requested that the group raise its consumption of whole-wheat bread and suggested a specific goal The goal specified for a particular "request" group was set at the same level as the amount which had been chosen voluntarily by the particular decision group with which it was paired. Subsequent analysis revealed greater whole-wheat consumption by the decision groups and, in general, the members of the decision groups reacted more favorably to the proposal and rated themselves and their group as more eager to reach the goal. There was, however, one decision group in which a high goal was set by a bare majority of the membership and rejected by the minority, with the result that of all the groups the members of this one were the most discontented with the goal and the least eager to reach it An important finding was that in the decision groups, eagerness to reach the goal had no relation to the individual's own preference for white as compared with whole-wheat bread. In

the request groups, on the other hand, a relation existed between these two variables. This result parallels that of Horwitz, that the group goal can override a person's personal preference on an issue if he subsequently accepts the goal. In general, Willerman shows that members are less motivated to reach group goals set by external figures than goals set through discussion and decision within the group.

In summary, the group-decision studies suggest that member acceptance of group goals is heightened by a goal-setting procedure involving discussion and participation in selecting the goal. Incidentally, Marquis, Guetzkow, and Heyns (1951) provide data which suggest that the *possibility* of participation is more important than whether or not the person actually participates. In a series of studies of decision-making conferences, they found that member satisfaction with the meeting and the decisions reached does not correlate with amount of overt participation but is related to whether or not the member feels he has had an opportunity to say what he wanted to during the meeting.

A beginning has hardly been made at exploring the basic factors underlying this relation between participation procedure and goal acceptance, or the exact conditions under which this relation holds. One possibility is that a participation procedure increases the likelihood that a goal will be set which is congruent with individual goals. That this is not the whole story, however, is indicated by the fact that initial preferences are sometimes set aside in favor of the group goal. Another possibility is that because of the discussion involved in setting the goal, members are more likely to have adequate knowledge of the goal and of its value to themselves and to the group, as well as a realistic view of its attainability. A somewhat different explanation would be that a positive evaluation of the goal is derived from hearing that other group members value it. Thus, if the goal is definitely desired by some members and this becomes apparent through the discussion, their associates may either change their judgments of the goal or work toward it simply as a means of helping their friends. On the other hand, when the goal is imposed from without or by group leaders, hesitance or apathy may be attributable to the fact that no member gets a chance to communicate his preference for it. Over and above any tendency to resist being told what to do, which is probably quite general, there may well be a hesitancy to change in any way that might be felt to violate the expectations of one's associates. These suggested explanations for the effectiveness of group decision do not begin to exhaust the possibilities Determining the specific mechanisms underlying this phenomenon is an important research problem for the future.

A beginning in this direction has been made recently by Bennett (1952) in connection with the use of the group-decision method to influence individual behavior not related to group goals. The problem had to do with getting college students to volunteer to take part in psychological experiments. In this particular situation, the desired behavior occurred more frequently (a) when in the course of the influence attempt class members were asked to make a decision and (b) when they perceived near-unanimity within the class in favor of volunteering Whether a lecture or a group discussion preceded the decisions and whether individual decisions were made public or not made no difference in the outcome. Further insight into the influence of the group setting on individual behavior comes from another study of volunteering, performed by Schachter and Hall (1952). Two variations were found to be particularly effective in eliciting volunteering: (1) when all students, whether interested or not, were requested to fill out information blanks, and (2) when volunteers were requested to raise their hands and half the class had been pre-instructed to respond as if volunteering. The authors interpret these results to mean that group-derived restraints against volunteering (arising from concern over being thought queer or different) are reduced to the extent that (a) the person may volunteer without his actions (signing the blank) being conspicuous or (b) others are perceived to be volunteering. In these respects, the conditions were presumably much less favorable to volunteering in the other two experimental variations where (3) volunteers were requested to raise their hands and (4) only the volunteers filled out the blank. In (3) the manner of indicating volunteering was relatively conspicuous and in (4) each student presumably had little idea of whether or not others approved the action. However, from the point of view of whether or not volunteers actually attended the experiment, variations (3) and (4) were *more* effective than (1) and (2). This result has a very important implication for the use of the group setting to affect individual behavior. When group restraints are low, many persons who have little genuine interest in the recommended action may unrealistically indicate their willingness to carry it out. However, their interest may not be great enough to overcome restraints against performing the action which are en-

countered later. Similarly, the group setting may provide a temporary increment to the motivation to perform the action which may not be present on a later occasion outside the group situation.

Before concluding this discussion, it should be noted that in experimental studies of group problem solving, the group goal is generally given. In real life situations it usually must be decided upon or provided in some manner from within the group. Goal setting often goes along with problem solving and frequently involves similar processes. As the solution process proceeds, the goal is frequently re-evaluated in the light of revised estimates of the likelihood of success. Studies of shifts in group level of aspiration should contribute much to the analysis of this process. One such investigation may be mentioned very briefly Rosenthal and Cofer (1948) gave small groups (four or five college students) a series of trials of dart throwing, each trial consisting of five throws per member. The groups were motivated to equal or surpass a fictitious score made by groups of government workers. An assistant, planted in the experimental groups, performed at the level of the group average but talked and behaved with an attitude of indifference and neglect. The control group had no such member. As a result, members of the experimental groups came to have less belief in the attainability of the goal and felt that the group probably would not strive to achieve it. The levels of aspiration of the individual members were determined and after several trials the group was asked to decide what would be considered a satisfactory group score. In the course of the experiment, agreement on a group level of aspiration became much more difficult to achieve in the experimental groups than in the controls. In addition, in the experimental groups, the members' individual levels of aspiration were consistently higher than those decided upon by the groups There is some suggestion in these data that as the planted member's behavior disrupted the group effort (and note that it was his "attitude" and not his work performance which led to the loss of morale) the other members began to substitute individual goals for the group goal. At this point, our discussion of the relation between individual and group goals comes full circle; whereas the main concern has been with the conditions under which group goals become one's own goals, here we suggest a set of circumstances in which the member gives up the group goal and returns to more private ones.

TYPE OF TASK

The particular task that confronts the group may affect the manner in which the contributions of the individual members can be combined. In most of the problem-solving research we have been considering, the contributions of any single member contain all the elements of a complete group solution. Any one person alone can produce a complete solution to the problem. Then, depending upon the group "voting" process, the group product can be as good as the best individual contribution or as poor as the worst. Under these conditions there can be a highly differentiated weighting of individual contributions, with the result that the dependence of the group locomotion upon any one member is quite low. However, if the task requires that the solution to the problem be divided up so that each individual's contribution contains only part of the total necessary elements, every person's contribution must enter into the group solution In a sense, under these conditions, no member can refrain from "voting" and no member's contribution can be rejected. In such extreme cases, the group product is highly dependent upon each and every member's contribution and, hence, is strongly determined by the poorest individual product.

An example of such a task is that used by McCurdy and Lambert (1952). Eleven individuals and 13 three-person groups performed a task set by a modification of the Yerkes multiple-choice apparatus. The apparatus consisted of six two-position switches wired in such a way that a light appeared when the total pattern of switch positions corresponded to that on a master control panel Starting with all switches in a given position, each new pattern required the change of only one switch. A score was given on the basis of the number of correct patterns completed within a given time period. When subjects performed individually, each was responsible for all six switches, while in the three-person groups each subject had two switches. As a group task, the apparatus makes the group progress highly dependent upon the quality of each individual's contribution, since only when the total pattern of positions is correct can the group proceed to a new setting. Group members were allowed to talk freely The results show individuals to be significantly more effective than groups. This finding is supported by the results of a second experiment similar to the foregoing one in all major details Again individuals ($N = 12$) completed more patterns within the allotted time than did three-

person groups ($N = 22$), although the mean difference did not quite reach statistical significance.

McCurdy and Lambert are inclined to attribute the relative ineffectiveness of groups to the high likelihood of their containing at least one person who was inattentive to the experimental instructions, which warned against a special kind of error. In a task of this nature, an error by any one member holds up the progress of the entire group. Taking the combined data of both experiments, only 7 out of the 23 individually tested subjects showed evidence of inattentiveness to the instructions On the other hand, 29 of the 35 groups contained at least one member who showed evidence of inattentiveness. This incidence of inattentiveness in the groups is not surprising; it ". . . is to be explained on the basis of the probability of their containing one, two, or three individuals who, taken individually, would likewise have proved to be inattentive" (p. 486). We might note that other factors conceivably may produce considerable inattention to instructions among the members of a group: (a) less feeling of responsibility for the product when working together than when alone, and (b) less attention to a speaker when one is a member of an audience than when one is involved in a two-person interaction.

The technique used by McCurdy and Lambert raises the general problem of division of labor. Division of labor is likely to be advantageous in a group problem-solving situation if the elements into which the task is broken can be so simplified that every member is able to perform adequately. If the parts are so difficult that a sizeable proportion of the members fail to complete their assignment, the progress of the group will be deterred unless arrangements are made to have the more capable members step into the breach and complete the necessary parts.

Although there is little description of the group process, the results of the experiment by Husband (1940) suggest the type of tasks for which division of labor will produce superior group results. Forty subjects worked alone and 80 subjects worked in pairs. Three types of tasks were used. a word puzzle, a jigsaw puzzle, and five arithmetic problems. Time taken to complete each task was the measure of performance. Paired subjects were significantly faster than individual subjects, except on the arithmetic problems, where no differences were observed. It may be remembered that Klugman (1944), using arithmetic reasoning problems, found that pairs of children, while more accurate, took significantly longer than individuals. The suggestion here is that on certain puzzle tasks a division of labor is possible, since each member may work on a different part of the task (as in a jigsaw puzzle) or on a different hypothesis as to the correct answer (as in the word puzzle, which required decoding). Husband notes that the paired subjects sometimes worked independently on the jigsaw puzzle and that this seemed to produce better scores. Arithmetic problems apparently do not lend themselves to a division of labor, but more likely require persons to work in parallel or together.

A study by Thorndike (1938b) raises some further problems as to the nature of the group task The explicit purpose of the study was to test the hypothesis that ". . one important factor in determining the amount of group superiority (over individuals) may be the range of possible responses to the task situation" (p. 409) Forty-six students served as subjects once a week for a 4-week period. Half of the subjects worked as individuals on the first and fourth weeks and in small groups on the intervening weeks, while for the other half the sequence was reversed Four tasks were presented for solution. Each task appeared in two forms, differing only in the "range of possible responses" The CAVD Sentence Completion Test and CAVD Vocabulary Test were administered in two forms, one permitting free completions, the other restricted to multiple-choice responses. One form of a Limericks test involved adding three lines, while the other form required addition of only one line. In the fourth test, a crossword puzzle was to be constructed (unrestricted form) or a given puzzle was to be solved (restricted form). The results show that for both forms of all four problems the group scores were superior to individual scores, although not always significantly so. Moreover, in conformity with his hypothesis, Thorndike found group superiority to be greater on the unrestricted form than on the restricted form for the Vocabulary and the Limericks tests and, although not statistically significant, for Sentence Completion. This finding may be related to the advantage sometimes accruing to groups from having a greater range of possibilities suggested for consideration. In a fixed-alternative problem the individual is presented with the possible answers by the problem itself. In a free-response situation, he has to produce for himself the alternatives to be considered. Ordinarily a number of persons will raise more possibilities than a single person. (This point is discussed more fully in a later section on heterogeneity of opinion.)

On the crossword puzzles, however, Thorndike found a statistically significant reversal of his prediction: groups showed a greater superiority in solving the puzzle than in constructing it. Thorndike's observations on the problem-solving process in his groups are worth quoting In *solving* a puzzle, he writes, "Words suggested . . . are held tentatively at first, but are presently either confirmed or rejected on the basis of their fit with other words Once a particular section of the puzzle is filled in it may be forgotten and attention may be shifted to another part of the puzzle . . . There is an accumulation of individual contributions. (However) in *constructing* the crossword puzzle, there is no predetermined right answer . . . There is no gradual confirmation of the correctness of the answer . . . and the interrelations of many parts must be kept continuously in mind. Individual suggestions follow diverging lines . . . Groups found it very difficult to work together on this complex fluctuating pattern . . ." (pp. 412-413).

Aside from the possibility that this result may be due largely to the special nature of the puzzle solution task (it is admirably suited for division of labor and provides a framework in which individual contributions can be accumulated and validated), the puzzle construction task has some very interesting properties. It requires reaching decisions on early phases which can only be validated subsequently as the task nears completion. An individual working alone will hit upon an approach and follow it out consistently. But in a group, a beginning suggested by one member must be accepted pretty much on faith by the others. He is little able to justify it without elaborate discussion which would virtually constitute a complete solution in itself. Since several persons will have initial hunches as to how to begin, they are likely to continue developing them. These developments most probably will result in independent solutions with little or no interchangeability of parts. A group organized autocratically might encounter less difficulty with this task if the leader is able to induce all members to proceed from a single initial conception. Other groups might reduce the ineffectiveness of group effort in this type of task by setting up special procedures for reaching quick agreement on a general framework into which individual products can be fitted. Certainly, it is extremely important that future research on group problem solving deal systematically with tasks such as this which require member contributions of high creativity and imagination and solutions both of great complexity and of high integration.

An early study by South (1927) suggests an interesting interaction between type of task and group size, possibly mediated by strength of initial opinions held by individual members. South formed 1312 college students into groups of 3 and of 6 (and also, for another purpose, groups of 4). Each group worked at four different types of problem, two of which South classified as "abstract" (bridge problems and a multiple-choice task adapted from Yerkes), the remaining two being classified as "concrete" (judging emotions from photographs and rating English compositions). As Dashiell (1935) has commented, South's statistical procedures and method of presenting his data make it difficult for the reader confidently to draw any conclusions. Yet the following digest of results is hazarded. Group size, in South's study, appeared to create no dependable difference in accuracy on either of the two categories of task. However, the smaller groups tended to be faster than the larger ones on the "concrete" problems and slower on the "abstract" problems.

South's seemingly sensible interpretation of this speed reversal is that on the concrete problems every member had a strong opinion and consensus was gained only after much threshing out of differences. Presumably, the fewer the members the less time this process required Indeed, this appears to be consistent with the results of Hare (1952), who found that in discussing the relative importance of various pieces of equipment on a camping trip, small groups of Boy Scouts were better able to achieve consensus than were large ones It might also be pointed out that in a large group the probability of having at least one extremely able member is relatively high. Hence the able member of a large group might solve South's abstract bridge problem all by himself. On the other hand, expertness at judging emotions is not so socially demonstrable, without any empirical or formal means of verifying a proposed solution, group consensus might prove the most reassuring mode of resolving differences of opinion. Reaching a consensus may be quite time consuming, particularly when the group is large. This would be especially true when group members have strong initial opinions on the matter at issue, in which case they are neither readily changed in the course of the discussion nor are they willing to consent to or tolerate other views in the process of coming to a group decision.

The sheer volume of interaction in a group

has been shown by Deutsch (1951) to be dependent on the type of task employed and on whether the group is cooperatively or competitively organized During each of six successive weekly sessions two types of problem were discussed by small groups. One type was a human relations problem having no objectively correct solution, the other was a logical puzzle for which there was a uniquely correct solution

In general, Deutsch found a higher volume of interaction and greater attentiveness to one another's contributions on the human relations problem than on the puzzle problem, presumably because the solution to the former depended on consensus. For the puzzle problem alone, the cooperative groups showed a higher volume of interaction than the competitive groups. Deutsch's explanation is that since solution of the puzzle did not *require* interaction and since members of competitively organized groups had mutually exclusive goals, it was to their advantage to arrive at the solution independently while giving as little aid as possible to one another.

An opposite result was found for the human relations problem competitive groups showed more interaction than cooperative groups Furthermore, where the competitive groups generally showed less acceptance of other members' contributions than the cooperative groups, this was especially marked on the human relations problems Since the solution of these problems depended on consensus and since the competitive subjects had mutually exclusive goals, it was important for them to criticize and discount one another's contributions. This was a particularly safe venture on the type of problem where no logically derived answer could be produced to refute and expose the criticism. In general, from these results it is clear that both the type of task and type of relation among members' goals affect the social processes whereby individual contributions are modified, publicized, and collated into group decisions.

GROUP SIZE

In this section we shall deal with the consequences for group process and problem solving of variations in group size. Purely physical variables readily manipulable, like size, have a way of presenting themselves to the researcher's attention, particularly in the absence of good theory. For social engineering purposes the importance of the variable is indisputable. But size itself may have distinct limitations as a variable with clear theoretical significance. One difficulty is that when group size is varied, numerous other changes in process and structure occur within the group For example, it is commonly observed, particularly in sociometric studies, that as group size increases there is also an increase in opportunities for forming subgroup coalitions representing minority attitudes Other direct consequences of variation in group size will be cited later. However, changes in size probably affect too many aspects of group functioning to permit very precise predictions from size to outcome variables For social engineering purposes the size variable may be profitably related directly to variables of group process and structure, or in gross actuarial terms to certain outcome variables. But in theoretical research it may prove most meaningful to attempt to deal in less confounding ways directly with the process and structural factors.

One of the most obvious consequences of increasing the size of a group is its effect on the heterogeneity of opinion within the group As size is increased, the probability increases that a wide variety of ideas and solutions will be presented during the group discussion. Gibb (1951) offers the hypothesis that the idea productivity of a problem-solving group will vary as a negatively accelerated increasing function of its size. He studied 48 groups, 6 in each of 8 different sizes, ranging from "groups" of 1 to groups of 96 Each group discussed one of three types of problems for a half hour. The subjects called out their contributions, which were then recorded on a blackboard The results confirm the hypothesis quite strikingly. The reader may wonder, though, just what is accounting for the negative acceleration of the obtained curve. As group size increases, the mean number of ideas produced per member might be expected to decrease because a particular problem yields only a limited number of really different solutions or, alternatively, because the experimenter's assistants can record only a limited number of contributions in a half hour.

A second important result of this investigation, which may account in part for the preceding finding, is that with increasing size a steadily increasing proportion of the group members reported feelings of threat or inhibitions of their impulse to participate. In the same study, Gibb found that increasing the feelings of threat by creating a more formal procedure and setting led to a reduction in the number of ideas proposed.

Gibb's results suggest that size influences the restraint against contributing. This, of course, is important for the process of assembling individual contributions into the group product,

since only publicized contributions may affect the group solution.

A number of other studies concerned with the effects of size on group process are suggestive of accompanying variations in restraints against contributing to the group discussion. Observing behavior in groups of four and groups of eight members, Carter and his associates (1951) found low intercorrelations among leadership behavior, initiative, authoritarianism, and insight within the small groups, but high intercorrelations within the larger ones. The authors conclude. "In the group of four each individual has sufficient latitude or space in which to behave and thus the basic abilities of each individual can be expressed; but in the larger group only the more forceful individuals are able to express their abilities and ideas, since the amount of freedom in the situation is not sufficient to accommodate all the group members" (p. 250). Thus, at least in leaderless laboratory groups, it appears that changes begin to occur in the freedom or permissiveness of group atmosphere as size is increased

Bales, Strodtbeck, Mills, and Roseborough (1951) have presented some data related to this point. Group members were ordered according to their "basic initiating rank." Theoretical curves based on a harmonic distribution were then fitted to the obtained percentages of total acts contributed by members at each ranked position. For groups of size three and four the empirical curves were found to be flatter than the theoretical ones, but for groups of size five through eight the empirical curves were steeper. Thus, it appears that the proportion of very infrequent contributors to the group interaction increases as the size increases. In the larger groups the discrepancy between obtained and expected frequencies was attributable largely to the large volume of participation by the highest initiator. Although Stephan and Mishler (1952) used a different size of unit in their observations and sampled a somewhat different population of groups, they obtained distributions of participation very similar to those reported by Bales *et al.* Over the range from four to twelve, Stephan and Mishler found that an increase in group size was accompanied by an increasing difference between the volume of participations initiated by the most active member (who, in all cases, was the leader-instructor of the class groups observed) and the volume initiated by the next most active person. Excluding the group leader, members of adjoining ranks (the ranking being made in terms of volume of participation initiated) tended to have more nearly equal rates of participation as the size of the group increased.

Evidence from both of the above studies suggests that as size increases from three to seven, there is a sharp rise in the proportion of members who contribute less than would be expected if each member shared equally in the interaction. Beyond the size of seven, this proportion shows no consistent increase or decline. Bass and Norton (1951) report results that are similar in some respects. They studied ratings of the leadership behavior (e g., offering good solutions to the problem, showing initiative, leading the discussion) shown by the members of initially leaderless groups of 2, 4, 6, 8, and 12 persons. The variability among the ratings of the various members tended to increase as size increased from two to six, and then remained about the same for the larger groups

In sum, the available investigations of group size and participation suggest that as size increases, the most active member becomes increasingly differentiated from the rest of the group, who become increasingly similar to one another in their participation output In addition, over the range from about two to seven, there appears to be an increase in the proportion of the group who are "undercontributors" in the sense that they account for less than their equal share of the total volume of interaction. The latter result may indicate an increase in the restraints against participation, which results in an increasingly large proportion of the group being discouraged from making overt contributions.

FRIENDSHIP RELATIONS AMONG MEMBERS

We shall now turn to a discussion of the effects of friendship relations among group members upon the problem-solving process of the group. There seem to be two broad possibilities. Close friendship may lead to better communication and wider participation in the group. This in turn might be expected to have a variety of effects. It might lead to more complete publicity of individuals' solutions and more widespread participation in the group solution. On the other hand, a second possibility is that close friendship may be accompanied by so much interaction and activity of a purely social sort that attention to the problem-solving task will be impaired — the individual thought processes will be superficial and distracted, little attention will be given to other persons' opinions, and the process of collation will be performed only haphazardly

or with undue respect for people's feelings. The latter possibility has been discussed by Homans (1950) in terms of the feedback of the internal system upon the external Let us now look at the research that bears on these two possibilities mentioned above.

Effects on communication. Several studies on the transmission of rumors (Festinger, Cartwright, *et al*, 1948; Festinger *et al*, 1950) are consistent with the assumption that friendship can be coordinated to a reduction in the barriers to communication. Hence, in a group composed of close friends we might expect the communication channels to be more open and more numerous. Accordingly, in such groups the available information ought to be more surely and more rapidly incorporated into a solution. This corresponds to the finding of Husband (1940) in the study noted earlier. On each of three types of tasks pairs of close friends were faster than pairs of strangers A similar result in a quite different setting is reported by Goodacre (1951). Twelve 6-man reconnaissance units from the same Army regiment were assigned the same tactical combat problem. Ratings were obtained of the proficiency with which each unit performed. By sociometric testing the units were ranked in order of the weighted proportion of intra-unit friendship choices. This latter measure yielded a rank-order correlation of +.77 against proficiency of unit performance. This finding could conceivably be due to more efficient communication within the high-friendship units. It is not clear whether additional factors (e g, enhanced motivation) were also at work.

We would expect that good communication possibilities would have facilitative effects on problem solving regardless of whether friendship or some other factor was responsible for the communication channels. Using the theoretical formulations of Bavelas (1948), Leavitt (1951) has studied the direct effects of a variety of communication patterns on the speed and accuracy of group problem solving and on role differentiation and member satisfactions. By experimental manipulation of the communication possibilities among members of 5-man groups, Leavitt created four patterns of communication: the circle, the chain, the Y, and the wheel. The task assigned to all groups required every member to reach a correct solution to a problem which could be solved only by pooling information originally divided among all members. The characteristic mode of operation adopted by most of the groups was for the "peripherally" located members to feed their information to the member located most "centrally" in the communication network, this member assembled the information, solved the problem, and fed the answer back to the other members. The results on speed of solution are inconclusive, but in terms of accuracy the circle pattern was clearly the poorest, while the Y and wheel patterns appeared to be superior

The second broad possibility to which we have referred is that friendship and its consequences for good communication may actually interfere with group productivity Such a circumstance has been noted by Horsfall and Arensberg (1949) in a study of work groups in industry. The authors report that, of four 7-person work groups, the least productive indulged most in social activity. Since there was apparently no evidence of a group standard to restrict output in these most "social" groups, it seems quite possible that task energies in these groups were being diverted into person-oriented activities. A different case of inverse relationship between popularity and productivity in a large business office is reported by French and Zander (1949) but, in this instance, it seems likely that low productivity reflected conformity to informal group standards.

In her study of individual vs. group problem solving, Bos (1937) concludes that among her paired children, ". . . the fact of being intimate as playmates or friends did not in the least affect either the working contact or the quality of the work." She continues: "It even seemed to us that a too lively personal interest of the children in each other was a stumbling block . . the fact being that the contact which stimulates mental activity and intensity must be rooted in the *task in hand* and not in the *person* If personal interest dominates, the attitude necessary for the work is interfered with" (pp. 415-416).

Effects on influence. In addition to these effects on ease of communication, friendship may have direct effects on the amount of influence exerted in communication within the group. A study by Horowitz, Lyons, and Perlmutter (1951) illustrates this possibility. The friendship pattern of a group of 20 persons attending a summer workshop was determined by sociometric methods. Then, following a regularly scheduled discussion by the group, the investigators presented to the group three of the assertions made during the discussion, each with the name of its originator. Questionnaire responses yielded data on (a) each member's perception of which other members agreed or disagreed with each of the assertions and (b) each member's actual agreement or disagreement with the assertions. Two principal

results come out of the study. There is a high relationship between the degree to which a person likes the originator of an assertion and the person's tendency to agree with it. Second, a person perceives liked members as agreeing in his judgment of the assertion and disliked members as disagreeing. The authors interpret their results in terms of Heider's (1946) analysis of social cognition and hence in their account emphasize the perceiver's attempt to maintain a congruence between an event and its origin.

In the study just described a correlation was established between liking a person and agreeing with his assertions. But it is not certain from such evidence that an attitudinal *change* has actually been induced. To substantiate that an influencer's attractiveness is a determinant of the degree of his influence, a better controlled study is needed.

An experiment by Back (1951) offers some surer insight into the influence process. Pairs of subjects, at first working individually, wrote stories about a sequence of photographs. Then the members of a pair were brought together to discuss their stories. No external pressure was brought to bear on the subjects to reach agreement. Finally, following the discussion, the subjects again wrote individual stories which were analyzed for evidence of influence from the partner. Back attempted to vary experimentally both the degree and the basis of mutual attractiveness in his pairs of subjects. For some pairs the basis of attractiveness was interpersonal liking, for others it was interdependence in attaining a desirable goal, and for still others it was maintenance of the prestige of the pair. Back found that the subjects most strongly attracted to one another influenced each other more than those least strongly attracted, this relationship holding regardless of the basis of attraction. Supplementary evidence on amount of time spent in the discussion and reactions to the partner's suggestions indicates that this relationship is probably not due simply to more intercommunication within the strongly attracted pairs, but rather that they were more receptive to each other's influence.

Effects on security. From the foregoing evidence, it appears that the occurrence of friendship relations among the members of a group leads to a heightened potentiality for influence within the group. One might further suppose that the sense of social support and the ability to induce active collaboration that strong friendship creates would enable the group to deal more confidently and effectively with its environment, including persons external to the group. Some evidence on one aspect of this suggestion is yielded by Wright's (1943) study of pairs of young children in a frustrating situation. Pairs of strong friends showed more cooperative behavior and less conflict behavior in the frustrating situation than did pairs of weak friends. Furthermore, and this is the more relevant finding at the moment, strong friends showed more aggressive action against the adult experimenter (i e., the agent of frustration) than did weak friends. Arsenian (1943) found a similar result in her study of young children who were placed in a strange room alone or in the presence of a friendly adult. In the latter case, fewer symptoms of emotional disturbance were observed.

We may mention an additional source of in-group security described by Cartwright (1950). He proposes that "a person's feeling of security is determined by the relative magnitude of two sets of factors. These may be expressed as a ratio in whose numerator is put the person's perception of the magnitude of his own power *plus* all friendly or supportive power he can count on from other sources, and in whose denominator is put the person's perception of the magnitude of all hostile power that may be mobilized against him" (p. 441) Cartwright further suggests that when a group member accepts and conforms to the standards or norms of a group, his security is enhanced by virtue of the supportive power that the group is capable of mobilizing to enforce these standards Hence, a group in which norms or standards have become well "institutionalized" will be able to present a secure front to the outside world This is, in fact, the finding of Merei (1949) in his studies of nursery-school children. Certain of the children, who had individually been relatively docile and ineffectual in the open playroom, were formed into separate groups. In time, each group tended to develop its own unique set of "permanent rules, habits, traditions" governing the conduct of its members. When these practices and expectations had become well "institutionalized," Merei added to each group a child who in the initial nursery-wide situation had been unusually influential and powerful — much more so than any individual member of the small groups. The success of the newly added members in their attempts to maintain their usual dominant positions was quite variable. However, not even the most successful and adept of these children was able to abolish the group traditions and rituals. Still, the strength of these traditions is not to be conceived as separate from that of the group members. Merei concludes: ". . . the group 'plus' is not some

substance hovering above the group it is the hold their customs and habits have on the members, it is tradition, the carrier of which is the individual, who, in turn, is strengthened by it" (p. 35).

ATTRACTIVENESS OF THE GROUP AND GROUP STANDARDS

The experiment by Back (1951) described in the preceding section has established a relationship between the degree of mutual attractiveness of a pair and the amount of mutual influence exercised. Back's research stems from the theoretical considerations proposed by Festinger, Schachter, and Back (1950). In this work, the concept of the attractiveness of the group assumes a position of central importance, leading directly into such major group phenomena as group standards and conformity behavior.

The sources of group attraction or valence are asserted to be of two main types: the direct, unmediated attractiveness of association with the group, this being largely composed of the valence of the *group members* for one another; and the attractiveness of goals that are mediated by belonging to the group, e.g., activities made accessible to group members, or the prestige or status achieved through membership. For the purposes at hand, differences in the source of attractiveness are ignored The over-all attractiveness of the group to all of its members is defined as the *cohesiveness* of the group. [This definition has been severely criticized by Gross and Martin (1952) and defended by Schachter (1952).] Sparing detail, the cohesiveness of the group is postulated to set the upper limit on the power of the group to influence its members. In other words, the group cannot induce a force on its members greater than the strength of the members' motives to belong to the group. From this it follows that as the cohesiveness of the group increases, its *power* over its membership will likewise increase.

One of the most common and most important utilizations of group power (and the one emphasized by Festinger, Schachter, and Back) is in the enforcement of conformity to group standards Later on in this section we shall discuss the nature of a group standard more fully, at the moment it is sufficient to say that a group standard is equivalent to a set of specifications for behaviors or attitudes about which the group attempts to achieve uniformity among its members. From the postulated relationship between cohesiveness and power, it follows that as cohesiveness increases the group will be increasingly able to enforce conformity to its standards. (If the foregoing statement suggests a reification of the group, it is unintentional. We merely intend to leave open the question of just who are the main agents of communication and influence in the group.)

The evidence presented by Festinger, Schachter, and Back (1950) for the relation between cohesiveness and a group's ability to produce conformity is fairly convincing. The study was carried out in two veterans' housing projects for married students. In one of the projects there were signs that a group standard had developed around attitudes toward a special organization of the tenants In the other project there appeared to be no evidence that such a standard had yet developed. It was predicted that among the nine subdivisions (courts) in the former project there would be a positive relationship between a measure of cohesiveness (the "corrected" proportion of friendship relations maintained with other members of the court) and a measure of conformity to the group standard in the court. In the project where no standard existed it was predicted that no such relationship would exist The results tend to confirm the hypothesis. A rank-order correlation of .74, significant at the 02 level, was obtained in the project with a group standard, while in the second project the correlation was .27.

Before continuing, one difficulty in interpreting the findings of this study should be noted. This difficulty hinges on the dual effects of "friendship." On the one hand, as Festinger suggests, "friendship" may function as a component of group cohesiveness to increase group power, and thus to further conformity. But in addition, as indicated in the previous section, "friendship" may be operating directly to reduce the barriers to intermember communication. In the project where a group standard existed, members of highly cohesive courts would thus very likely be *better informed* about the standard (through communication with fellow members) than would members of less cohesive courts. In the project where no standard existed, the communication content would presumably be irrelevant to the standard. Hence, it is conceivable that the findings in this study may be attributable as much to cognitive factors (or differences in sheer information about the standard) as to the application of group power.

An experiment by Schachter, Ellertson, McBride, and Gregory (1951) extends this line of research from attitudinal uniformity to group productivity. This experiment is intended to test the hypothesis that with increased cohesiveness the group will be better able to enforce

conformity to a standard of productivity regardless of whether the standard is in the direction of lowered or of heightened output. Laboratory groups were set to work at cutting out checkerboards. By controlling the content of intermember communication (and thus eliminating the possibility of differential information that may have been present in the housing study), a group standard of high productivity was introduced into half of the groups, and a standard of low productivity in the remaining half. Within each of these major variations, group cohesiveness was varied experimentally. The results do not show cohesiveness to be significantly related to productivity when the group standard is toward high production. However, when the standard is toward low production the highly cohesive groups produce substantially less than do those with lower cohesiveness. The hypothesis is only partially confirmed

A study by Bovard and Guetzkow (1950) illustrates the difficulties in using the notion of "group standard" in interpreting relationships between cohesiveness and uniformity. Stable groups were compared with temporary ones. The former were found to be the more "cohesive" in terms of a number of measures, e g , degree of personal liking among group members, feeling of belongingness in the group. Each of the groups was given the task of estimating the number of dots on a visual display Each member was asked to make his estimate and report it orally before the entire group. This was followed by the public announcement of the mean judgment for the group, after which each member was asked to make the judgment again In keeping with the hypothesis that higher cohesiveness leads to greater mutual influence, the stable groups showed the greater amount of convergence toward the group mean on the second individual judgment. However, the variability in initial judgments was also substantially greater in the stable groups than in the temporary groups. Bovard and Guetzkow interpret this latter finding as meaning that in the groups which have had a long existence, members have had more opportunity to discover that this kind of judgment does not lie within the province of a group standard. Note that this result relates to Allport's (1924) finding of a tendency to make more moderate judgments in a "together" situation than when alone. Bovard (1951a) elsewhere reports results similar to those above and suggests that the general conformity pressure which tends to produce convergence of judgments made in social situations is differentiated by verbal interaction among the various individuals. In the course of interaction, each person becomes clear as to the areas of behavior in which conformity is expected and consequently feels freer to take extreme positions on issues which he knows to be safe. In a group with little interaction, a person is not sure what are the limits of the "conformity zone" and consequently plays safe and exhibits moderation in a wide variety of behaviors. Here we again see the two separate effects of interpersonal liking as they apply to the operation of group norms (1) friendship makes for good interpersonal communication which can lead to high clarity about the realms of behavior to which norms apply, (2) friendship makes for high mutual influence which in turn furthers high conformity to whatever norms are specified.

We have discussed some of the evidence relating cohesiveness and group power to the ability of the group to enforce conformity to group standards or norms. But we have not yet indicated just why the members of a group, even though their mutual power *potential* be high, would be motivated to seek the enforcement of conformity. That is, we have not answered the question Why do group standards arise and why is conformity to these standards sought? Perhaps the best attempt, from a social psychological viewpoint, to answer the question has been that of Festinger (1950) and the following is, in substance, a paraphrase of the explanation he offers.

Generally it can be said that the same factors responsible for the emergence of group standards will also be in large measure responsible for the motivations to enforce conformity to them. These factors are of two kinds, which Festinger has called "social reality" and "group locomotion " The first of these, which we have mentioned earlier, begins with the assumption that persons seek support for their opinions and beliefs either through applying empirical or formal tests or through achieving agreement with their fellows about the "correct" opinion or belief. The readiness with which a person will accept agreement with a group to which he belongs as the criterion of validity for a particular opinion will depend in part on whether he can apply direct empirical tests to the opinion and on whether the group constitutes a "good" reference group for this particular opinion (cf. Gerard, 1952). From this we would expect that to some extent group standards would tend to arise, along with motivation on the part of group members to enforce conformity to these standards, around issues for which no direct test of validity or "correctness' is available to group members.

The second set of factors ("group locomotion") described by Festinger refers to the supposition that in order for the group to move toward a goal, certain degrees of uniformity of opinion or belief may be necessary or desirable. The motivation of group members to attain a state of uniformity will be greater the more important the group goal and the more the members must depend on the group to reach their individual goals

These considerations of "social reality" and "group locomotion" offer some beginning, at least, in an attempt to account for the emergence of group standards and the motivations to enforce conformity to them. The next problem that arises is under what conditions it can be said that a group standard exists Briefly, a group standard can be said to exist if the (agent of the) group communicates to the members the information that along a given dimension, a certain range of behavior or attitude is expected. In addition, the group member usually will be informed that deviations beyond the expected range are not sanctioned and will be treated in a certain manner. The act of communication here should probably be viewed in the widest perspective, to include not only explicit messages initiated by the group but also active attempts on the part of the group member to diagnose what the group requires and what consequences will follow upon deviation

From this conception of a group standard, it appears that we should turn to three types of studies: (a) Those where a group standard is communicated by the behavior of the group majority (b) Those concerned with group members' perceptions of standards. (c) Those concerned with the treatment of deviates.

The effects of a group majority. Dashiell (1935) has summarized a number of early studies in which, on a number of issues, the group received the actual majority opinions of such groupings of people as high school students, college students, and adults in general. In all these studies there were shifts in the direction of greater conformity to majority opinion. However, the opinions communicated to the subject were those of broad classes of people and would not necessarily coincide with those of any primary groups to which the subjects belonged.

The more recent studies have dealt with the effects of majority opinion in actual face-to-face groups on the attitudes of minority members Thorndike (1938a) studied the influence of majorities in groups of size 4, 5, and 6 A series of "objective" problems was given to each group. The members first responded individually to a question, then discussed it, trying to arrive at a correct, unanimous decision. Combining the cases where the majority was "right" and where it was "wrong," Thorndike computed the probabilities that a member of an initial majority (or minority) would shift his judgment. For example, with a majority of 5 in a 6-person group, the probability that the minority member will shift toward the majority is .730, while the probability of a defection from the majority is .017. For a majority of 3 in a 5-person group, these probabiliities change to 363 and 145. (It should be kept in mind, of course, that these probabilities are specific to the nature of the problems and to the properties of the groups) In general, Thorndike's data reveal a definite tendency for members to change toward the point of view held by the majority, and this tendency appears to vary directly with the size of the majority.

Asch (1952) has conducted a series of experiments on the effects of majorities on individual judgments. In his basic experiment 7 subjects, accomplices of the experimenter, were instructed in advance to make unanimously wrong judgments (concerning the length of a line) at certain times during the experiment. Hence, the 8th subject, who was uninstructed, was confronted from time to time with a unanimous majority opinion at variance with the immediate perceptual evidence. The influence of this degree of group pressure was surprisingly strong. One-third of all the judgments made by uninstructed subjects showed distortions in the direction of the (erroneous) majority judgments, whereas control subjects, recording their estimates in writing without knowledge of one another's judgments, made virtually no errors Asch went on to introduce a number of variations into the basic experiment. A variation in which the naive subject was given a "partner," who consistently reported the "true" estimate, considerably reduced the tendency to yield to the majority. In another variation the partner "deserted" to the majority in the middle of the experiment. This act of withdrawal caused the influence of the majority to reappear with full force. On the other hand, when the partner started the experiment with the majority but began to make correct estimates midway through the experiment, the naïve subject then showed marked independence from the majority.

Asch also reports some preliminary data from his experiments on the effects of unanimous majorities of different size. Single naïve subjects were opposed by 1, 2, 3, 4, 8, and 10-15 pre-instructed subjects. When the opposition bloc was only 1 or 2, the naïve subject was relatively independent. However, with a majority

of 3 the full effect of group pressure appeared. Larger majorities led to no further increases in the effect.

The perception of group opinion. We have previously mentioned the importance of good intermember communication for the transmission of information and ideas relevant to problem solutions. There seems to be no doubt that efficient communication is also indispensable to the development of group standards and to the transmission of information about these standards to the group members. Travers (1941) studied the accuracy in estimation of group opinion by members of two groups a group of 65, in which there was good opportunity for interaction, and a group of 200, in which widespread interaction was impossible. Not surprisingly, the members of the smaller group showed superior accuracy Wood (1948) reports a similar result. Members of a longer-established group, with numerous friendship interrelations, were found to be more accurate in estimating group opinion than were members of a relatively "new" group.

If good communication leads to a more accurate perception of group opinion, it is not unreasonable to suppose that those members who are "centrally" located in the group and have broader contact with other members will show superior accuracy in assessing group opinion. On these grounds, group leaders would be expected to be superior to followers in judging the opinion of the total group. Studying a variety of groups, Chowdhry and Newcomb (1952) report data supporting this view for issues relevant to group functioning, but not for irrelevant issues. The authors prefer to interpret their results as indicating that members endowed with superior sensitivity to group opinion are selected for leadership. However, they acknowledge the alternative possibility that improved judgment of group opinion may be a consequence of the leadership position.

Hites and Campbell (1950) report results that are inconsistent with those just cited. They found no differences among elected leaders, appointed leaders, and nonleaders in fraternity groups in accuracy of estimating group opinion, regardless of whether the issue was relevant or irrelevant to group functioning. The authors' comments suggest that this finding may be attributable to great homogeneity within the groups with respect to the specific issues investigated, and to a high rate of interaction among the members. Under these conditions, nearly everyone might know the opinions of the other members and leaders might have no more advantageous positions in the communication network than rank and file members

One further point should be made here concerning the perception of group opinion. A considerable number of studies (Travers, 1941, Sappenfield, 1942, Wallen, 1943, Wood, 1948, Gorden, 1952) have shown that individuals tend to perceive group opinion to be closer to their own opinion than it actually is Whether this is due to association with a biased sample of like-minded individuals in the group or to an attempt to allay anxiety about nonconformity by minimizing deviation from the group standard remains a problem for further research. In any case, this tendency to underestimate the discrepancy between group consensus and own opinion may be an additional factor responsible for the more accurate perception of group opinion in longer-established, more cohesive groups. These groups would presumably be characterized both by more efficient communication and by closer adherence to group standards. By virtue of better communication, perception of group opinion should improve. But even if communication were held constant, the members would have little discrepancy to minimize, by virtue of small variability about a standard. Further experimental work is needed to separate the independent effects of these two factors.

Treatment of deviates. It is common knowledge that when a member deviates markedly from a group standard, the remaining members of the group bring pressures to bear on the deviate to return to conformity. If pressure is of no avail, the deviate is rejected and cast out of the group The research on this point is consistent with common sense. Festinger and Thibaut (1951) found that a preponderance of communication was directed toward group members who took nonconforming attitudes toward the issues under discussion. Schachter (1951) obtained a similar result and found further that pre-instructed accomplices who took nonconforming roles, resisting group influence, were strongly rejected by the group. When, in control variations, these same accomplices conformed throughout the experiment or abandoned nonconformity under group pressure, they were not rejected. This appears to mean that, under certain conditions, conformity is rewarded with status and nonconformity is punished with rejection.

Some of the correlational studies in this area give support to this view. In the Bennington study, Newcomb (1943) reported that popularity and community prestige were positively

related to conformity to the group standard of political liberalism. Kelley and Volkart (1952) obtained data that may reflect the same relationship in their study of Boy Scout Troops In their privately expressed opinions popular boys showed greater resistance to propaganda directed against the group standards than did less popular boys. In other words, popular boys held more strongly to the group standards than did less popular boys

We have discussed in an earlier section of this chapter the likelihood that by virtue of attractiveness or valence, a person or group has power over those attracted Accordingly, a popular person, who is attractive to his fellows, might be expected to have greater power over them and to be able, if he so desires, to resist their attempts to require conformity of him. However, the evidence presented above indicates that, at least under certain conditions, a popular person will show relatively close conformity to a group-induced standard The discrepancy between these two lines of evidence may conceivably be resolved in various specific instances if we consider some special factors.

(1) Once established, group standards may have an "autonomous" power that can successfully resist that of any individual member. Merei (1949) has shown that individually powerful children, when introduced into earlier formed groups composed of individually nonpowerful children, are unable to abolish or run counter to the group standards that have emerged. To occupy again their old power positions, these children must work with and through the standards Sherif (1935) obtained a somewhat similar result in a setting where "institutionalization" might be thought unlikely. In one of his studies of social factors in the autokinetic effect, 2- and 3-person groups made judgments of the magnitude of movement of the light Each group was free to decide the order in which the members would make their judgments Sherif comments that leadership may have developed in some groups, where the group norm established would reflect the leader's judgments. However, "If the leader changes his norm after the group norm is *settled* he may *thereupon* cease to be followed . . ." (p. 171).

(2) As compared with the more popular members, the less popular ones may not have so clear a perception of what the group standards are This is related to the possibility mentioned earlier in reporting the study by Chowdhry and Newcomb. In the present context, this could mean that in some instances degree of popularity affects deviation not *via* power but rather *via* differential opportunities to acquire information about the group standard A closely related point, suggested by Newcomb's (1943) Bennington study, is that a deviant group member often is unaware of how nonconforming he actually is. This might be expected to contribute to the relationship between popularity and conformity to the extent that inaccurate self-perception is related to unpopularity

(3) Another closely connected circumstance may operate to reverse the relationship between popularity and conformity. Schachter's (1951) study suggested that status is contingent on conformity. In temporary informal groups with status hierarchies fluid and just beginning to be formed, status can be easily granted and easily revoked. In better established and more differentiated groups, status once acquired may be less subject to revocation. In such groups, the high status (popular) member has nothing to lose by deviation and has much power to oppose group influence Hence, we would expect a negative relationship between popularity and conformity

A number of studies report such an inverse relationship without, however, providing all of the information necessary for a full explanatory account in the terms we have used. Hughes (1946) has described a work group in industry in which a clique of long-service employees had established a "standard" production rate to which new employees were required to conform. It was noted that as the newcomer gradually attained acceptance in the group, conformity pressures were relaxed. "Apparently a girl who is socially well established in the group can consistently break the rate a little with only mild teasing as punishment. But outsiders who break the rate are severely punished by ridicule and scorn; if they persist, they remain outsiders and if associations are important to them, they may be forced off the job" (p. 517). Finally, we may note a finding by Sherif (1951). An experimental study done with boys in a summer camp showed the least popular boys in a group to be the most ardent conformists to group standards oriented around hostility toward an out-group. This result may reflect the ability of the more popular boys to deviate, with impunity, from the group standards, but, of course, it may be more revealing about the use of conformity by unpopular members as a means of gaining acceptance.

In conclusion, we have presented here some of the evidence on the determinants of conformity in groups. It is clear that an understanding of these tendencies toward uniformity of attitude and behavior is important to the study

of group problem solving. For these events are identical with the processes by which groups achieve consensus However, in any particular situation the ways in which such tendencies toward uniformity will operate — whether to facilitate problem solving by leading to improved coordination and focusing of effort, or to impede the problem-solving process through premature rigidification and abandonment of incompletely tested alternatives — awaits further research and theory

STRENGTH OF INITIAL ATTITUDES

When, at the outset of group discussion, the attitudes of the members are strongly anchored, it is to be expected that these attitudes will resist change This statement should hold true whether the anchorage of the attitude derives from direct personal experience (as in direct observation, in experimentation, or in logical analysis) or from acceptance of a group standard (both where the standard is that of the group under study and where it is that of an external group to which a member holds allegiance). Further, this resistance to change is to be expected regardless of the source of the pressure to change, whether this be from inside or from outside the group.

One aspect of the study by Kelley and Volkart (1952) serves to illustrate this kind of resistance to change. It was assumed in this study that members who value highly their group membership (i e., those to whom the group is highly attractive) will have accepted, or "internalized," the standards of the group more fully than those members who take their membership lightly Hence, the hypothesis was put forth that under conditions where attitudes can be expressed "privately" (without the knowledge of fellow members), those members who put high value on their membership will be less influenced by a communication contrary to the group standards than will those who value their membership only slightly. No such relationship was expected when attitudes were to be expressed "publicly," since the external sanctions and controls of a public situation would presumably affect all members.

The study designed to test these hypotheses was done with 12 Boy Scout troops. Prior to the experimental session, the Scouts answered two questionnaires, one measuring the degree to which membership in the troop was valued, and the other measuring the degree of adherence to the group standard under study. At the subsequent meeting, a standardized speech antagonistic to the group standard was delivered to the troop by an outside adult. Following the speech, the questionnaire measuring adherence to the group standard was administered again On this administration, however, each troop was divided into random halves, each receiving different instructions. In the "private" condition, the members were assured that their responses would be treated in confidence, but in the "public" condition the members were instructed that the questionnaire responses would be made public to the whole troop.

The results of the study support the hypotheses advanced. In the "private" condition, a significant negative relationship was obtained between how highly membership was valued and attitudinal change away from the group standard. In the "public" condition, no such relationship was found Thus it appears that when members bring into the situation well-internalized attitudes (in this case, attitudes strongly anchored to the group standards of a highly valued group), such attitudes will be relatively resistant to influence attempts from outside the group. This result has been substantiated by Gerard (1952) in an experimental situation.

In problem-solving groups, however, the more usual source of influence is from within the group Hence, we shall turn to those studies that explore the effects of initial attitudes on the development of consensus within the group. An experiment by Festinger and Thibaut (1951), intended primarily to test some hypotheses about communication patterns in small groups, provides some information of relevance here Small groups were assembled to discuss an assigned problem. Thirty-one groups were given a problem in football strategy and 30 groups were given a problem that involved making recommendations about the proper treatment of a delinquent boy. It was expected that subjects would bring to the latter problem relatively strong predispositions about the most desirable solution, whereas the football problem was expected to elicit no very strongly anchored initial opinions about a best solution. The data show quite clearly that much more progress toward consensus was made with the football problem than with the case-study problem. Data from other experimental variations in the same study showed progress toward consensus to be associated also with the amount of "pressure toward uniformity" applied to the group and with the experimentally induced perception that the group membership was "homogeneous."

We have already mentioned in the section on task differences the possibility that a consideration of initial attitudes may help to explain

some of South's (1927) data. South himself felt that his "concrete" problems evoked strong initial opinions, whereas the "abstract" problems did not If it can be safely assumed that strong initial opinions resist change and that the "concrete" problems required something approaching consensus for their solution, it appears to follow that South's large groups would be expected to be relatively slow (and his small groups relatively fast) on the "concrete" problems.

HETEROGENEITY OF OPINION

The foregoing sections have dealt with broad motivational factors that determine the group members' susceptibility or resistance to social influence We now intend to discuss briefly some of the more purely cognitive processes of influence that occur in group problem solving. Whether a group member tends to change his judgment or reconsider his solution to a problem may depend in part upon the variety of opinions or solutions to which he is exposed. If he finds other members of the group sharing his opinion or solution there will be no occasion for him to change. Only if other persons differ from him will he re-examine his own position and be likely to change it. It has been suggested by a number of investigators that reconsideration of this sort will generally result in improved or more nearly correct solutions and opinions.

Three early studies reported in detail by Dashiell (1935) bear on this point. None of them, incidentally, involved a group solution; they are concerned only with changes in individual products. The first of these is by Bechterew and de Lange (1924). Individual subjects recorded their private judgments of a series of events. These judgments were then announced to the group. Finally, apparently without any intervening discussion, the subjects again made individual judgments When compared with initial judgments, the final judgments proved to be more nearly accurate on time estimation, recall of detail, perception of differences, and perception of similarities. In connection with this study Dashiell (1935) comments: "If each individual has provided him for choice not only his own earlier estimates but still others furnished by other individuals, it is no wonder if he has a better chance now of making a decision more objectively accurate or more considered. His range of choice has been increased" (p. 1128).

Marston (1924) studied the judgments of jurors after hearing a story from a number of witnesses. The data suggest that there are advantages to having several witnesses (a) to extend the range of observations, thus increasing the completeness of the jury's survey, and (b) to provide mutual checks and contradictions, thus enabling the jurors to increase their accuracy through detecting erroneous testimony

An experiment by Jenness (1932) evaluates directly the hypothesis that increased range of opinion in the group will lead to increased accuracy of individual judgment. The task was to estimate the number of beans in a bottle, with free discussion intervening between individual judgments. Groups were formed either to have great or little heterogeneity of initial opinion. A greater increase in individual accuracy was found when the group contained a relatively large range of opinion.

The preceding three studies suggest the possibility that in some instances the failure of groups to achieve any greater accuracy than individuals may be attributable to extreme homogeneity of initial opinion in the groups This is a possible, but by no means demonstrable, interpretation of the findings reported by Kaplan, Skogstad, and Girshick (1950). Twenty-six subjects made 13 weekly sets of predictions about the outcome of a variety of political, economic, and scientific events to occur within 20 weeks. The predictions were then validated against the actual outcomes The possibility of great homogeneity among the subjects is suggested by the fact that 24 were college graduates, 13 had two or more years of graduate training, 19 were mathematicians, statisticians, or engineers. Thirteen of the subjects were divided into quartets of three kinds. Each of these subjects was rotated in such a way that he worked 4 times in each kind of quartet and worked once with each of the other 12 predictors The three kinds of quartet formed were· *independent quartets,* in which the subjects worked alone without discussion, *cooperative quartets,* in which the subjects discussed the questions together and then answered individually; and *joint quartets,* in which discussion was followed by a collective decision on a single answer for the entire group. The results show that the mean predictions of the four subjects comprising the independent quartets were virtually as accurate as either those made by members of the cooperative quartets or those made as group decisions in the joint quartets.

In general, the heterogeneity of expressed opinion within a group will be determined by any factor which affects the willingness of persons to announce their various opinions and solutions. As we have seen earlier, group size

is one such factor. Of obvious importance are social restraints in the group process which may inhibit participation by certain of the group members. A comparison of organized with unorganized groups by J. R. P. French (1944) revealed greater equality of participation among the members of the former groups. French suggests that the greater social restraints in the unorganized groups, which were composed of six students with little or no prior acquaintance, inhibited the one or two shyest members from participating in the problem-solving process. Under conditions such as these, the suggestions of some members would be withheld, with the frequent result that the range of expressed opinion is markedly narrowed.

Special techniques are sometimes used to maximize expressed heterogeneity in a group, such as that of taking a census of opinions or ideas at the beginning of a group discussion. The desirability of such procedures for ensuring a degree of heterogeneity of opinion within a group is attested to by the joint significance of two kinds of data already presented. On the one hand, there is good evidence that without special procedures, groups tend toward homogeneity of attitude. This is well documented in the studies on communication directed toward deviates (Festinger and Thibaut, 1951), the rejection of unyielding deviates (Schachter, 1951), and the massive effects of large majorities (Asch, 1952). On the other hand, as we have just seen, there is good reason to believe that the very multiplicity of opinion, so often and so rapidly lost, is a very real basis for the formation of accurate and undistorted judgments within the group. [Further relevant evidence on this point, from a study by Maier and Solem (1952), indicates the gains derived from having a discussion leader who obtains a hearing for minority points of view. Cf. section on leadership.]

STATUS DIFFERENCES AMONG MEMBERS

It is frequently the case that the members of a small group are differentiated in terms of what is commonly referred to as "status." In some instances the status hierarchy is indigenous to the small group under consideration. In other cases, the hierarchy reflects the different prestige positions which the members hold in the external community or in a larger organization of which the small group is a part. Suggestive of the latter case is evidence from Bass and Wurster (1953), based on observations of the leadership performance of oil refinery supervisors in temporary and initially leaderless small groups. It was found that supervisors ranking high in the company organization tended to receive higher leadership scores than low ranking ones. In part, this result may be due to other factors (e.g., ability differences, observer bias), but it probably indicates some tendency for status relations in large organizations to be transferred to and maintained in subgroup interactions among the organization's personnel. Bass and Wurster's data further suggest that the influence of the external hierarchy is especially strong when the particular problem under discussion has to do with the organization and situations in which the status differences exist. While present research generally fails to distinguish between these two cases — the one where the hierarchy is inherent to the small group and the case where it reflects an external hierarchy — it may eventually be necessary to take them into account

It is by no means a simple matter to define "status." It generally refers to the value placed upon a specific position within a group by the members of that group. In many instances the high-status person has a number of other interrelated characteristics: he has certain privileges not enjoyed by others (which account in part for the high value placed upon the position), he exercises leadership functions and has certain special responsibilities, he is at the center of the communication network within the group, and he has relatively great power over other members. In the present discussion we shall give our attention largely to the communication and influence aspects of status and the implications of these for the processes operative in group problem solving.

The attractiveness (valence) of high status has been related theoretically to communication between persons of different status. Because high-status positions are highly valued, we can predict that group members will endeavor to move upward in the status hierarchy. Accordingly, some of the communication within the group should reflect these attempts and should be instrumental to such changes of position. In circumstances where upward movement is blocked or highly unlikely, we can expect certain behaviors to occur which serve as substitute means for satisfying the drive to achieve higher status. Thus, low-status persons may have fantasies about occupying positions of high status and may strive to associate with high-status persons. Although by no means demonstrated, this latter hypothesis may provide the correct interpretation of the evidence from sociometric studies which indicates a tendency to feel closer to, and name more often as friends, persons at

higher educational and sociometric levels than those at one's own or lower levels (Lundberg and Steele, 1938, Dodd, 1935).

Communication directed toward persons of high status may also serve as a substitute for blocked upward locomotion Evidence consistent with this assumption is provided by Thibaut (1950). Working with friendship groups of ten- to twelve-year-old boys (about ten members in each group), Thibaut established high- and low-status levels within each group by systematically favoring some members and discriminating against others Analysis was made of the effects of this treatment on sociometric choices and on communication between levels As the discrimination in favor of the high-status level proceeded, the low-status members increased their total communication directed toward the highs but decreased the proportion which was aggressively toned One explanation for these trends was that upward communication, serving as a fantasy-like way of achieving mobility, increased as the impossibility of actual locomotion became increasingly evident A further bit of evidence on this point comes from a study of the transmission of planted rumors within an existing hierarchic organization (Back *et al.*, 1950). Of the acts of communication stimulated within the organization, a large majority were directed upward in the hierarchy, while only a few were directed downward.

Hurwitz, Zander, and Hymovitch (1953) studied the effects of status upon interpersonal liking and communication within small discussion groups where the status differences reflected an external prestige hierarchy. Persons working in the field of mental hygiene in a specific community were judged as to their prestige in the eyes of fellow professionals. They were then placed in six-person groups and discussed topics related to mental hygiene problems In line with the sociometric evidence cited above, it was found that high-status persons were better liked than lows In this connection, the most marked result was the low degree of liking expressed by high persons for those of lower rank. Analysis of the participations during the discussion revealed that highs consistently communicated more than lows. Both low- and high-status persons directed more of their remarks to high-status persons than to lows, with the consequence that high-status persons received much more communication than did lows. These investigators place considerable emphasis upon the power aspects of status and advance an "ego-defensive" theory of communication and liking in status hierarchies Low-status persons are assumed to feel uneasy in their relations with persons of high rank because of the power the latter possess. The attempt of the "lows" to reduce this anxiety is exhibited in their tendencies to express liking for highs, to overrate the extent to which highs like them, to participate infrequently, and when they do talk, to talk mainly to highs.

An experimental study concerned specifically with investigating the communication process within hierarchically organized small groups was performed by Kelley (1951) Groups of eight college students were assigned a task which apparently involved communication among the members in order to reproduce in one room a geometric pattern given in another. Actually all members performed the same task and reacted to a preplanned set of standard communications, supposedly initiated by other members of the group Different experimental instructions were given to introduce variation in the subjects' perceptions of the attractiveness and importance of their job in comparison with that of the subgroup in the other room. As a result, each person was led to believe that his own subgroup and task were high in status and the other subgroup low or, vice versa, that his status was low and that of the other subgroup high A control group was given no instructions regarding status The members worked at the task for half an hour and responded to the prepared messages, after which a sociometric questionnaire was given.

A content analysis of the communications initiated under the various status conditions provided some additional support for the hypothesis that communications sometimes have the function of being substitutes for actual locomotion Conjectures about the nature of the jobs at the other status level were initiated more frequently by those low-status persons who had strong desires to locomote upwards. In addition, the volume of communication irrelevant to the task was greater for the low-status subjects than for the high, perhaps because the irrelevant content served as an escape or diversion from the low-status position and task. The status differential also affected restraints against communication. The evidence suggested that high-status persons were constrained in addressing criticism of their job to the low-status subgroup and in expressing confusion with it to anyone. Finally, in comparison with the control condition, both high- and low-status conditions were characterized by little criticism of persons at the other status level.

While the above results require considerable further documentation, they suggest some of

the important ways in which a status differential within a group may affect the communication process required for problem solving. For example, the problem-solving process may be seriously sidetracked or delayed by the tendency for low-status persons to discuss irrelevant matters or to use communication to directly promote upward mobility, as a substitute for actual locomotion, or [as Hurwitz, Zander, and Hymovitch (1953) suggest] as a means of allaying status anxiety. Similarly, the critical reactions to member contributions which Shaw (1932) and others have found to be important to the success of group problem solving may occur too infrequently in a hierarchically organized group due to general restraints against interlevel criticism or to special restraints felt by high- or low-status persons.

Another result of Kelley's study should be noted briefly Feelings of friendliness for persons at the other (higher or lower) status level markedly declined for two groups of experimental subjects: those having high status with the possibility of downward locomotion and those having low status without the possibility of upward locomotion. These results suggest that interlevel friendship is likely to decline (a) when some members have desirable status positions which are constantly in danger of loss to lower members or (b) when some members are permanently restricted to undesirable positions Thibaut (1950) provides some consonant evidence, and Hurwitz, Zander, and Hymovitch's datum on the rejection of lows by highs is consistent with (a). An additional generalization about the effects of status on friendship is suggested by the latter authors' hypothesis that low-status persons will like highs as an ego-defensive measure and is consistent with the tendencies found in sociometric studies for choices to be directed upward. The indicated proposition is that low-status persons who have the possibility of upward locomotion will tend to like highs if the latter have control over the mobility processes. These generalizations about the interaction of status, mobility, and power in determining interpersonal liking and communication are only tentative and require much further investigation. From the point of view of group problem solving, they indicate that under certain conditions, status differentials may produce a deterioration in friendship relations. This may interfere with the effectiveness of the communication and influence processes, may place serious strains upon the group functions concerned with maintaining good internal relations, and may divert considerable energy from the functions required for successful action in the external environment

Let us now turn to the implications of status for social influence. (The reader is reminded of an earlier discussion of popularity — a notion closely related to status — and its implications for conformity to group norms) It is generally assumed that high status is associated with high power, i e, high ability to influence the behavior of others For example, in his analysis of the social system of the small group, Homans (1950) hypothesizes that " a person of higher social rank than another originates interaction for the latter more often than the latter originates interaction for him" (p 145, author's italics omitted).

Some evidence for this view is provided by several studies of contagion already referred to (Polansky, Lippitt, and Redl, 1950, Lippitt, Polansky, and Rosen, 1952) These investigations go considerably beyond the phenomenon of unintentional influence and provide some of the basic research evidence on the direct and intentional use of power in interpersonal relations. Of primary relevance here is their discussion of power relationships in the cabin groups in several summer camps for youngsters A definite hierarchy of power existed within each cabin group, there being general agreement among the members as to which ones had the greatest and which the least power In addition, it was shown in one study that each child had a fairly adequate perception of how others ranked him in this respect. In agreement with Homans' hypothesis stated above, the more powerful child was better liked by his associates and more frequently mentioned as a person the others would most want to be like. Thus, it appears that there is a direct relation between the social evaluation of a person and his position on the one hand, and his power on the other.

The power ranking received a behavioral validation from the following kind of observation: the child with high attributed power was more often successful in (and made more attempts at) direct influence than was the child with low attributed power Although more susceptible to contagion (i e, to behavior instigations where the initiator had no obvious intent to exert influence), the child with high attributed power was observed to be relatively less receptive to direct influence attempts Other children's attitudes toward him were reflected in their behavior: they exhibited more deferential behavior toward him and a higher proportion of their attempts to influence him were

nondirective in nature The relations cited here held true, by and large, both in camps for disturbed youngsters from lower socioeconomic classes and in camps for nondisturbed middle-class boys For some of the interesting differences between the correlates of power in these two types of camps, the reader is referred to the original reports

While the contagion studies document some of the obvious facts about power hierarchies in small groups, we have to turn to cross-cultural research to find evidence as to their implications for group problem solving. Comparing Mormons, Texans, and Navahos in the southwest, Strodtbeck (1951) determined the tendency in husband-wife discussions for one or the other spouse to determine or "win" the group decision The pair was first asked to make independent evaluations of some shared experiences and then to reconcile through discussion any differences between their evaluations. Whereas among the Mormons the husband tended to win the majority of decisions, the opposite obtained among the Navahos. (Husbands and wives won about equally often among the Texans) This outcome was related to the difference between the Navaho and Mormon culture " . in terms of the degree to which the wife is favored by the cultural phrasing of power" (pp 469-470). The operation of this differential power in the discussion was reflected in the tendency for the partner who won the decision to be also the one who talked more.

It is, of course, not surprising to find that the more powerful members of a group are more likely to influence the outcome of the group-decision process The implication for the quality of group solutions hardly requires elaboration To the extent that power is positively related to ability, information, and other competencies relevant to the problem at hand, this tendency will work to the advantage of the group product. However, when power bears no relation or a negative relation to problem-solving competence, the total product is likely to suffer. Furthermore, under the latter conditions, as the views of the relatively incompetent members carry the group decision by virtue of the power of their contributors, the members with low power but great competence are likely to undergo considerable frustration and decline in their task motives.

The person with high status is usually in a position to exercise great power. Whyte (1949) describes a contrasting situation, common in the restaurant industry, where persons having high status, both in the culture at large and in the immediate organization, are required to have their activities initiated by persons of lower status. Specifically, male cooks or countermen usually have to take orders from female waitresses Whyte finds that this situation, which tends to produce interpersonal friction, is often avoided by various devices which make it unnecessary for the men to respond each time a waitress brings an order. Whyte suggests the hypothesis that relations among the members of a group run more smoothly when those of higher status are in a position to originate behavior for those of lower status. Generalizing to the problem-solving situation, this suggests that the situation in which status is negatively related to competence cannot be resolved simply by allowing the more competent members to increase their influence over the group's activities. This will produce tension because high-status persons are subordinated in the initiation of activities and, hence, are deprived of the power they usually have. It is probable that a situation of this sort can be equilibrated only by a realignment of status positions within the group

Finally, mention should be made of the stability and clarity of the status hierarchy and the manner in which these factors affect group problem solving Heinicke and Bales (1953) suggest that a group in which the status relations are stable and fairly well agreed upon will be more efficient than one where the relations are in flux. This conclusion is based upon data from ten temporary discussion groups, composed of five or six persons without prior acquaintance, and observed for at least four successive sessions. They found that in some of these groups a single hierarchy persisted throughout the sessions, accompanied by high agreement among the members as to each person's position in the hierarchy. In other groups, there was more change in the status relations from one session to the next and there was little agreement among the members as to their relative standings. These two kinds of groups showed considerably different time trends in their interaction patterns. Most significant for our present considerations is the evidence that members of the stable, high-agreement groups tended to be more satisfied both with their group and with their group solutions, and were more efficient in producing these solutions (considering both quality and speed). Heinicke and Bales suggest that the existence of a stable status hierarchy facilitates reaching consensus on the discussion problem because members with unchallenged high status may play a final and determining role in resolving disputes over what is "right." The authors also suggest that

when the problem of relative statuses is settled, less time must be spent in the kind of interaction that constitutes disguised attempts to change status positions Thus, the solution of the status problem (whatever set of circumstances makes it possible) may release time and energy for more task-oriented behaviors.

LEADERSHIP

The general topic of group leadership is treated in detail as a separate chapter in this volume and hence we shall make only a few brief remarks here. We propose to restrict our comments to those studies that deal with the effects of leadership on the process and effectiveness of group problem solving. The reader will find no discussion here of the determinants of leadership, of the personal characteristics of leaders, or of consequences of leadership for phenomena unrelated to problem-solving processes.

The studies that we shall consider can be divided into two sorts: those dealing mainly with the effects of leadership on interaction process and group phenomena that may be presumed to influence problem solving, such as "atmosphere," permissiveness, types and rates of member interactions, and intermember affect; and those dealing mainly with the direct effects of leadership on the effectiveness of group problem solving.

Effects on group process. The earliest and undoubtedly best known experimental studies of leadership were those of Lippitt and White, performed in 1939 and 1940 and most conveniently summarized in Lippitt and White (1952). These studies have already become classics, and hence we shall do little more than remind the reader of the outlines of the experimental plan and some of the results relevant to problem solving.

Four clubs of 11-year-old boys were formed in such a way that they were equated with respect to certain personal and sociometric characteristics of their members. Four adults performed a sequence of planned leadership roles ("authoritarian," "democratic," and "laissez-faire") so that, with minor exceptions, each adult played each leadership role and each club was exposed to each style of leader. Activities were held relatively constant between the various clubs by the device of permitting democratic and laissez-faire clubs to select an activity and then imposing the same activity on the club(s) concurrently being led by an authoritarian leader.

The results that bear most directly on problem solving can be summarized briefly *Authoritarian* leadership appeared to induce the following characteristic reactions in the clubs great dependency on the leader, marked intermember "irritability and aggressiveness," low frequencies of "suggestions for group action and group policy," dissatisfaction with club activities, and high quantity and low quality of productivity [for these last two points, see Lippitt and White (1943)]. Under *laissez-faire* leadership, the clubs showed little dependency on the leader, great "irritability and aggressiveness" among members, high frequencies of "suggestions for group action and group policy" accompanied by great discontent about progress and achievement, considerable dissatisfaction with club activities, and apparently intermediate productivity. *Democratic* leadership produced low dependency on the leader, low incidence of intermember "irritability and aggressiveness," high frequencies of "suggestions for group action and group policy," great satisfaction with club activities, and an intermediate quantity of productivity of high quality

A number of investigators have more or less exactly replicated the Lippitt and White experiments in a variety of settings. Adams (1943-46) and Robbins (1952) have obtained generally corroborative results in classroom settings. Similar results were also obtained by varying the management style of a home for children from broken families. This study, by Mowrer (1939), was apparently done at about the same time as the Lippitt and White research.

Preston and Heintz (1949) have investigated the more particular effects of democratic and laissez-faire leadership on the amount of change in attitudes of discussion-group members Democratic (participatory) leadership appeared to produce a greater change in privately held attitudes (and also a greater satisfaction with the group product) than did laissez-faire leadership. A general substantiation of their findings is provided by Hare (1953).

Bovard (1951b) studied some of the effects of two leadership roles in a classroom setting. In the *group-centered* role, the leader attempted to establish an informal and permissive atmosphere, encouraged group decisions, and facilitated intermember interactions In the *leader-centered* role, he adopted a formal procedure and seating arrangements and discouraged group decisions and intermember communication. The group-centered procedure was found to be successful in producing greater interaction among members both in class and outside. Further, group members under this style of leadership reported greater liking for

other members than did members in the leader-centered situation

Bovard (1952) also studied the consequences of the two leadership styles in a somewhat more controlled problem-solving activity Two groups met for a total of 39 hours, one in the group-centered, the other in the leader-centered treatment. Each group was then shown a movie (*The Feeling of Rejection*) followed by discussion Analysis of the post-movie discussions showed that the group-centered procedure yielded substantially more "communication of feeling" (i e , the discussion was more oriented toward feelings than an "objective" analysis) and better solutions to the problem posed by the movie This latter was measured by the judgments of two clinical psychologists on the amount of "clinical insight" apparent in the discussion.

The foregoing results suggest the advantages of democratic, group-centered leadership style Evidence that such leadership behavior may violate members' expectations and lead to dissatisfaction is provided by Berkowitz (1953) from a study of decision-making groups in government and industry [cf. Fouriezos, Hutt, and Guetzkow (1950)]. Within this particular population of groups, satisfaction with the meeting was found to be positively correlated with the extent of the designated chairman's control over the procedure and with the degree to which he alone performed leadership functions Satisfaction was negatively correlated with the proportion of the total interactions and solution proposals attributable to members other than the leader These various indices of the extent to which leadership was shared were not related to the productivity of the meetings, but the above correlations with satisfaction suggest that the members of these groups expected the designated leader to assume the main responsibility for the procedure. The impact of these expectations was apparently modified by the urgency of the problem facing the group. In groups with highly urgent problems, sharing of leadership had no relation to satisfaction and apparently was less distasteful to the participants. It is as if concern with an external problem lessens the importance of conformity to group traditions about leadership style. The general significance of Berkowitz' research is in suggesting that the reactions to any given leadership style will be affected, at least initially, by the expectations which members have about how the leader role should be performed. [In this connection, the reader is referred to Lippitt and White's (1952) data pertaining to the transitions from one style of leadership to another. Also relevant is the evidence that students often reject teaching methods that fail to provide the definite and structured situations which they expect and feel to be necessary for anxiety-free preparation for examinations (McKeachie, 1951; Wispe, 1951)].

Direct effects on problem solving. This area remains largely unexplored by systematic research. N. R F. Maier appears to be one of the few who have contributed anything beyond anecdotal material. In the first study that we shall consider, Maier (1950) investigated 46 eight-person discussion groups, 17 of which were assigned trained leaders, and 29, untrained leaders. The former leaders had been trained in democratic leadership techniques, the use of principles of reasoning, and a knowledge of the elegant solution to the problem under discussion. The untrained leaders received no training at all. The problem assigned to all groups was to decide what to do with a slow worker who was impeding production on an assembly line. The results show that while almost three-quarters of the trained-leader groups reached the elegant solution, hardly any of the untrained-leader groups achieved it. It is unfortunate for an unequivocal interpretation of these data that leader training included indoctrination both in technique and in the problem solution.

A later study by Maier and Solem (1952) compared the effects of two types of leadership role on the effectiveness of group problem solving. Each of 67 groups of 5 or 6 members selected a group representative. In 34 of the groups, the representative was assigned the role of discussion leader, in the other 33 groups he was assigned the role of observer. In neither role was the representative permitted to express an opinion about the problem (in mathematics) under discussion. Group members privately recorded their answers both before and after an 8-minute discussion The percentage of members having the correct answer before discussion was the same for the two types of group. However, after discussion the leader-groups showed a significantly higher percentage of correct solutions. Further analysis of the data shows that the greatest contribution of the discussion leader is to groups in which only a minority has the correct answer before discussion. When the majority is correct at the outset, the discussion leader counts for little more than the observer. Maier concludes that the problem-solving superiority of well-led groups comes mainly from the leader's ability to obtain a hearing for minority opinion. It is possible that this can be safely generalized only to tasks or

problems for which consensus exists as to the criteria of correctness of a solution.

FORMALIZED PROCEDURES

The processes of communication, influence, and voting involved in group problem solving need not be left completely to be determined by the informal friendship or power relationships within the group, the nature of the task, or other similar factors. It is possible for a group to modify these processes deliberately, at least to some degree, by the adoption of formal rules of procedure.

An example of such a formalized procedure would be the publication of ideas by taking a census of opinions or suggestions at the beginning of the discussion. In practical experience, group meetings have been found to benefit from this procedure, one possible reason for this, which we have noted earlier, is that group solutions seem to profit from heterogeneity in the opinions that are voiced This device of polling members for their ideas before any discussion is permitted may be viewed as a formalized scheme for encouraging all members to express their ideas under conditions of low threat. Criticism or evaluation of contributions are reserved until a later time, when they have tended to become the property of the entire group and are less closely identified with any single contributor.

Another procedural problem has to do with whether the voting required to reach a decision is carried out publicly or secretly and anonymously. A number of investigations document the fact that opinions expressed openly often differ from those expressed privately and confidentially (e.g., Schanck, 1932, Kelley and Volkart, 1952). The generalization suggested by some of these studies is that where opinions are related to group norms and where cross pressures (e g., from other groups or persons) operate in the direction of nonconformity to the norms, views communicated to other members of the group are likely to be more conforming than views expressed in private.

Methods of obtaining anonymous opinion responses attempt to achieve a census of *private* opinion. In so doing, these methods also reduce the opportunities for less secure members to find out how others feel about the issue and to express conforming opinions. It is fairly obvious that both effects of an anonymous vote may make considerable difference in the nature of the group decision.

Festinger (1947) provides an instance where even a secret and anonymous voting procedure apparently fails to yield private opinions. A number of groups were formed, each consisting of ten college women who had no prior acquaintance with one another. In each group half the subjects were Catholics and half were Jewish. During the experimental session, several secret votes were taken to nominate candidates for president of the group. On the first two votes, no mention was made of the various members' religious affiliations, but on the two subsequent occasions all members were identified in this respect. After this identification, Catholics tended to vote for Catholics but Jews showed no tendency to favor one or the other religious group in their voting. The procedure was repeated in a group of 48 women with two variations: only ten persons were recipients of votes during the nominations and the other 38 remained unidentified as to their religious backgrounds. Under these conditions, Catholics showed a tendency to vote for Catholics and, in contrast to the small-group results, Jews definitely tended to favor Jews in their voting. This result is interpreted in terms of a primary tendency to vote for persons of one's own religion, this tendency being inhibited for Jews in the small group where all members have been identified. Presumably, the Jewish girl fears rejection by members of the other religious group if she expresses her preference for members of her own religion, and even though the individual votes are secret, if this preference were expressed by the Jewish girls *en masse,* it would be quite apparent to the others This preference is permitted to operate, however, in the large group, where the religious composition of the group is not known and where most individuals are not potential recipients of votes from others This suggests that when individual votes are taken in secret but the totals are made public, the members of an identified subgroup may individually modify their votes on certain controversial issues if their subgroup's vote might be identifiable in the published totals.

Trends in Research on Group Problem Solving

The history of experimental studies of group problem solving has been marked by a number of major changes in the questions that have stimulated investigators and in the evidence collected to answer these questions. The reader who is interested in the details of the earlier work is referred to the chapter by Dashiell in the 1935 *Handbook of Social Psychology.* While the 18-year period between the present chapter and Dashiell's has seen a sizable in-

crease in the relevant literature, many of the problems he noted are still of great importance. We shall review briefly some of the problems and preoccupations which characterize the history of this field, primarily in order to provide a basis for evaluating the emphases and trends found in contemporary investigations.

The general social psychological problem that lies at the basis of research on group problem solving has to do with the effects upon the individual of various kinds of social influences. The earliest investigations were concerned mainly with comparisons of situations in which persons worked "alone," under observation, or side by side Attention was devoted almost exclusively to the individual products of work and to properties of individual performance. In terms of our earlier analysis of the major factors which account for the quality of group solutions, the main contribution of this early work was to reveal something about the effects of various social contexts upon *individual* thought and work. Unfortunately, while many specific questions in this problem area remain unanswered, very little research effort is presently invested here.

The concern with the *combined* products of a number of individuals first appeared in studies where independently derived individual products were pooled in some statistical manner. Genuine *group* products, decided upon by the interacting members to represent their group, were probably first studied by South (1927). The practical concern with jury process gave considerable stimulation to the study of group products, although in the early work of Münsterberg (1914) and his students the focus was initially upon the judgments of the individual juror after hearing testimony and after discussion. Dashiell (1935) brought to jury experiments for the first time an analysis of genuine group decisions.

During the 1930's a considerable number of researches were carried out in which both group and individual products were investigated. At Columbia University, this decade saw a number of investigators (Watson, 1928; Shaw, 1932; Thorndike, 1938a,b; Simpson, 1938; and Timmons, 1939, 1942) initiated a series of studies to determine whether discussion led to group products different from those yielded by sheer pooling. Much of this research can be characterized by the question, "Are groups superior to their average individual member?" This question is still apparent in some recent research, and we shall shortly consider its implications for progress in this field.

With the 1940's the study of small groups saw a drastic shift in focus, partly, we presume, because of developments in sociological field research of the earlier decade [in particular the pioneering Western Electric studies, cf. Roethlisberger and Dickson (1939)], partly because of a broadening conception within psychology of the proper province of research activity (as evidenced in social psychology by the rapid adoption and widespread use of attitude measurement techniques), and partly because of the theoretical emphases of Lewin (1951) and the central roles played by his students in formulating the group research of this period. The trend was away from concern about the end products of problem-solving activity, whether individual or group, and toward an emphasis on motivations, emotion, and interactions of individuals within the group. This new concern is clearly reflected in the main topics selected for investigation: security, fear, frustration, interpersonal relations (sociometry), communication, etc. From the point of view of our analysis of group problem solving, one of the most important topics initiated during this period has to do with the motivation of group members in relation to group goals

Methodologically, investigators of these problems have tended to attribute greater significance than had previously been given in group research to "subjective" data obtained from interviews and questionnaires. This is probably a necessary accompaniment of theoretical views that emphasized the perceptions and attitudes mediating individual behavior within a group. However, this has by no means constituted a preoccupation with verbal reports or a complete dependence upon introspective evidence. While taking less account of the formal and concrete products of group effort than earlier investigators, those of the last decade have placed much greater emphasis upon observations of the ongoing stream of behavior (interactions and communications) which constitute the problem-solving *process*. Another important facet of this period — and one clearly related to the above trends — has been a broadened conception of what can be varied experimentally in studying small groups. Earlier experimental operations had been confined largely to such variables as group size, type of problem, etc. Following Lippitt's pioneering variations of leadership style (cf. Lippitt and White, 1943, 1952), subsequent investigators have varied such factors as group cohesiveness, status relationships, uniformity pressures, and kind of decision process. They have also placed their groups in situations more laden with emotion than those provided by the typical problem-

solving task — situations of threat, failure, discrimination, temptation, etc.

In recent years, there has been a tendency for problem-solving groups to be displaced by discussion groups having no explicit goals, with the investigator attending exclusively to reactions of the members to one another. This trend, which has been noted by Argyle (1952), can be considered, perhaps, as a continuation of the focus upon interpersonal feelings and motives which has dominated group research for the last dozen years. Examples of this interest are to be found in research with psychotherapy groups and in the National Training Laboratory for Group Development [see Bradford and French (1948)].

While no longer as central to group research, the investigation of group problem solving is not neglected As pointed out earlier, the study of the functioning of small groups, whatever the specific problem, is often expedited by setting them to work on some sort of group task. Hence, evidence pertaining to problem solving is derived indirectly in the majority of small group studies. Furthermore, the investigation of problem solving *per se* has received considerable impetus from the practical concerns with the problems of group functioning encountered by planning committees, executive boards, etc. Some of the resulting research, such as that at the University of Michigan on decision-making conferences (cf. Bovard and Guetzkow, 1950; Fouriezos, Hutt, and Guetzkow, 1950, and Marquis, Guetzkow, and Heyns, 1951), has had a much broader perspective than classical problem-solving research, dealing at the same time with individual morale and feeling states, with the ongoing social process, and with the quality of group products. More recently, there have appeared several investigations (e g., Davitz *et al.*, 1952, Herrold *et al.*, 1952, Lorge *et al*, 1952; McCurdy and Lambert, 1952, Perlmutter and de Montmollin, 1952) which seem to indicate a revival of the more traditional emphasis upon group products. The purposes and procedures of some of these recent studies indicate two recurrent problems. These are, first, the formulation of research in terms of the relative effectiveness of the individual *versus* the group and, second, the tendency to disregard the details of group process in studying problem solving Because we feel that these tendencies are indicative of major inadequacies in this research field, a brief discussion of them will conclude this review.

One comparison that has characterized research on groups from the beginning is that between the individual and the group. The results of this comparison are plainly of practical importance to the citizen in his thinking about the jury system, for example, or about committee versus individual planning But the posing of this problem does not usually seem to lead to the collection of data that clearly illuminate either individual or group processes Too frequently the data are exhausted after a comparison of end products; the data that might conceivably have enabled a prediction of these products have not been collected. Here, as elsewhere in social psychology, the fault may be suspected to lie in the absence of any good theory about either individual or group processes.

There are indications that the next decade will yield rapid developments in theories about group process. Small group research in general has seen a considerable increase recently in the use of theory, although this is not very apparent in work where problem solving is the focus. Advances in the direction of deductive theoretical systems have been made, for example, in the area of social communication where Festinger's (1950) theoretical work is outstanding Admittedly, theory thus far is crude and piecemeal. However, we take it to be a promising sign that contemporary researchers are much less reluctant to discuss generalizations and *a priori* considerations than, for example, Dashiell appeared to be in his 1935 summary.

The second continuing problem is a methodological one — the tendency to disregard the specific influence and communication process in studying group problem solving. Dashiell noted in 1935 that inadequate attention was being given to analyzing the processes that intervened between experimental conditions and final outcomes. An exception was Shaw's (1932) study which showed that even very simple observations of group process could be exceedingly helpful. More recently a number of schemes have been published for observing problem-solving and discussion groups. Perhaps the best example is Bales' (1950) system of interaction analysis. These methods purport to be useful for a wide variety of research problems and promise to provide fairly standardized means for describing process. Bales' use of his own system has led to a focus upon process at the expense of either its determining conditions or its consequences. Whereas earlier investigators, for example, had studied group size as it affects output and neglected the effects of size variations upon the intervening process which must account for the size-output relation, Bales thus far has examined processes with little manipu-

lation of prior conditions and little measurement of outcome.

The problems and methods of studying group process are taken up in detail elsewhere in this volume (Chapter 10) There is little doubt that the direct investigation of the influence process offers many difficulties and can be an extremely time-consuming and frustrating aspect of research. However, it seems very doubtful that many crucial theoretical questions can be answered in the general study of social influence without the development of methods for analyzing the *content* of the influence process. What seems sadly lacking, except perhaps in Bales' work, are good theories about the content of social communication.

Recalling our earlier analysis of the factors contributing to the unique character of group solutions, the major aspect that remains virtually unexplored has to do with the process of assembling and combining individual opinions in order to create a "group" solution. This operation, which is unique to group functioning as contrasted with individual problem solving, is only hinted at in most research. A related and very important problem is the lack of research on direct social pressure, a phenomenon which is involved in this aspect of group functioning. The general trend in the study of social influence has been from the indirect and subtle influences toward more direct types. There are, of course, major exceptions (the studies of razzing and of hypnotic suggestion), but in general the early work dealt with the effects of the sheer presence of others or the knowledge of their opinions. Later work has been on influences brought to bear in the polite parlor-tea setting of discussion groups. Very little has been done on compliance with direct commands, the exceptions being the work of Frank (1944), Meyers (1944), and certain phases of the contagion studies described earlier. Perhaps we hesitate to learn of the factors which make direct pressure effective because its use violates our social values, but it is difficult to see how a complete psychology of influence or of social process can be constructed without such knowledge.

In recent years, social psychology has seen a rapid acceleration of research on problems of small group functioning and a number of significant theoretical developments in this field. These trends warrant considerable optimism that studies of problem solving will be guided increasingly by theoretical considerations rather than by superficial problems Evidence of this will appear in decreasing use of "surface" and unanalyzed variables such as group size, friendship relations, and status, and increasing concern about defining and investigating basic dynamic and structural properties of human groups The specific study of group problem solving will profit greatly from the development of research techniques that make possible a detailed analysis of the effects of the basic social factors and that locate these effects within the complex web of individual and interpersonal processes involved in achieving group solutions These theoretical and technical developments may initially yield experimental studies that appear to leave the practical problems of the world far behind. However, this research ultimately will contribute to a scientific understanding of group process which may provide a firm basis for dealing with practical questions in this important area of social life.

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CHAPTER 22

Psychological Aspects of Social Structure*

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The history of social psychological research on small groups is short but highly diversified. The inquiring student is confronted by a bewildering variety of research reports, differing in design, technique of data collection, theoretical position, terminology, and, above all, in the kind of behavior or events upon which the investigation is focused. The range of investigative purposes includes such topics as: determining act-to-act sequences of behavior in problem-solving groups of college students; comparing the productivity and happiness of adolescent boys under different kinds of adult leadership, ascertaining the friendships and hostilities of the naval recruit and their bearing on his health and success in training; measuring the relationship between personal attractiveness and communality of values; and observing the process and outcome of attempts to change opinion and arrive at decisions in adult conference groups. Superficially, the common element in all of these examples of small-group researches is that they involved a finite number of individuals, ranging from two to perhaps two dozen, who were at least aware of the others' identity and presence at the time of the experiment or observation. In this chapter we shall discuss the foregoing researches, as well as others, and try to demonstrate that there are less obvious and more important similarities among them.

We shall try to show that, in spite of the diversity of investigators' interests, there has accumulated a codifiable body of knowledge about how man behaves in small social units. Our purpose differs from that of the preceding chapter in that we do not deal with a single topic — problem solving — but rather range over a variety of research topics in small groups in pursuit of evidence for certain general propositions These propositions revolve around three basic questions how does a social structure arise, persist, and change in a small group? What are some of the determinants of effective operations by the group upon its physical and social environment? Under what conditions do group members receive the kinds of rewards or satisfactions they expect to follow from their activities as members?

These questions will occupy the center of attention, but there will be others cropping up from time to time because the researchers whose work we shall examine have rarely shared our orientation completely. Rather, it seems to us, there have been four principal lines of interest directing the choice of research problems, the kinds of groups studied, the techniques used, and the theoretical schemes in which observations were viewed.

One main line of interest in small groups is exemplified in the work of Georg Simmel, founder of the German "formal" school of sociology. Simmel treated small groups as miniature social systems, worthy of study in their own right but also suggestive of insight into the workings of larger social structures. A number of other students interested in social organization or social systems as such have felt that the chief advantages gained by studying *small* groups are those of manipulability and control resulting from reduction in scale of observation and measurement. The investigations of R. F. Bales and his associates under the rubric *interaction process analysis* are a contemporary example of small-group research whose main focus is on the properties of social systems and, in one sense, the analytic scheme proposed by G. C. Homans in *The Human Group* stems from similar motives. The work of many sociometricians, especially those whose data consist only or mainly of choice and rejection nominations, has often been motivated by an interest

* Preparation of this chapter was facilitated by the Laboratory of Social Relations, Harvard University.

in social structure as such Finally, we may mention here the writings of C H. Cooley, whose name is usually linked to the concept "primary group." Cooley considered face-to-face groups as fundamental units of society and erected much of his social philosophy on this premise.

But Cooley's interest in such small groups was more than a "formal" curiosity about social structure. He considered certain small groups, especially the family and the play group, as the main agencies of socialization. In this sense, Cooley represents a second point of view on the small group, that is, on the group as a medium or context for producing changes in its members, changes that endure beyond the existence of the group Such changes need not be of the "socialization" variety, but can include many kinds of attitude, personality trait, interest, or skill changes that come about during (and presumably as a result of) the interaction among group members Contemporary examples of this kind of interest in small-group research include studies of psychotherapy groups, the well-known experiments of Lewin and his associates on changing food habits and worker output, studies of decision-making conferences and of "permissive" compared with "directive" classroom teaching Studies of small groups as media of change often pay special attention to such variables as style of group leadership, "group atmosphere," and the feelings of members toward each other, as well as their personal characteristics

A third line of research employing small groups is that which treats the group simply as a convenient setting in which to study interpersonal relationships. Here the object of study is not the group as a social system, nor the effects of participation in the group on its members, but rather it is a pair, triad, or *n*-tuple of individuals in relation to each other. The group is needed to provide a conveniently contained opportunity for relationships to be formed, change, and be observed. Much of the stimulus to this sort of small-group research came from individual psychology, especially psychotherapy. J. L. Moreno, the originator of sociometry, began from such a standpoint. H. S. Sullivan conceptualized the psychotherapeutic process as a dyadic relationship in which perceptions of the "significant other" were explored and worked out. Current examples of this sort of interest occur in many researches, but especially in sociometric studies.

Finally, a major approach in small-group studies has been the interest in groups as means of performing operations on the physical or social environment, especially as means of accomplishing economically productive work Many investigators have been concerned with improving the effectiveness of working groups in industry, and have turned their attention to questions of interpersonal relationships and the happiness or satisfaction of members This direction was pointed out by the earliest important American studies of industrial work groups conducted at the Western Electric Company during the period 1927-1934 by Mayo, Roethlisberger, Dickson, Whitehead, and other members of the Harvard Business School staff This group of investigators had a primarily "practical" interest in working groups and, therefore, studied them in "natural" settings, as have many of their successors On the other hand, there have been many laboratory experiments in which psychologists studied the comparative effectiveness of individuals and groups, or of groups working under varying physical, social, and motivational conditions. This latter body of work, whose history begins before World War I, is sufficiently large to warrant a chapter (23) all its own, so we but mention it in passing here.

This fourfold classification of "lines of interest" or motives for studying small groups is a rough one, designed simply to orient the reader uninitiated in this field to what he is likely to encounter in the research literature. Investigators have chosen to study small groups because they were interested in social systems but liked to be able to manipulate them on a small scale, because they were interested in determining what changes participation in groups could bring about in members; because they wanted a convenient setting for studying interpersonal relations; or because they wanted to know the conditions under which groups were effective in putting out work or solving problems. Most small-group researches have been motivated by more than one of these four considerations, and both "practical" and "theoretical" concerns are reflected in a substantial proportion of the studies we shall discuss below

To these four main motives for studying small groups, we add our own fifth one. We shall examine studies of groups in order to derive empirically certain generalizations, propositions, or hypotheses that seem to us to have emerged repeatedly in the history of social psychological research. These propositions revolve around questions of the development and maintenance of a social structure, the determinants of effective performance, and the conditions of member satisfaction in small groups. Let us proceed to the business at hand.

Social Structure

We shall be concerned, in this chapter, with group phenomena from two points of view: the static and the dynamic. We shall begin by reviewing studies of groups considered as if they were stable units, and work our way gradually to studies of social change or group dynamics The studies of groups as stable units fall into three areas: studies of the internal structure of groups, studies of the relation between the group and its physical or social environment, that is, studies of group effectiveness; and studies of the satisfactions members get out of group life. Of these three areas, more work has been done on internal social structure than on any of the others, and the findings can be more easily reduced to some kind of system We shall begin with this area and then go on to consider the environment on the one hand and the individual member on the other. Studies in this last area, member satisfaction, will take us, by way of the study of social control, to group dynamics and social change

A *finding* or *hypothesis* is a statement of a relation between two or more classes of observations In the study of social structure, we shall divide the observations into the classes set up in *The Human Group* (Homans, 1950), to wit sentiment, activity, interaction, norms, and values We do not suggest that this classification is exhaustive or the only one that may be made, we simply find it convenient for our purposes The definitions of the different classes are given in the subsections that deal with them. We shall state the main findings that have been reached on the relations between these classes, trying to encompass the findings in the smallest number of independent hypotheses.

Sentiment in relation to activity and norms. By *sentiment* we shall mean the feelings or affect persons have about other persons. By our definition, sentiment is not overt behavior, although people often infer its existence from overt behavior; it is internal to the human organism. In practice social scientists most often measure interpersonal sentiment by asking the members of a group how much they like or dislike other members, that is, by applying some form of the sociometric test first described by Moreno (1934). Chapter 11 discusses the sociometric test as a research technique. Here we are interested only in the findings reached through its use.

In the sociometric test, the subject is not just asked to say whether he likes or dislikes certain other persons, but whether he likes them according to certain *criteria,* such as living with them in a house or working with them on a job. This implies that a person has an idea of the kind of behavior a "good man to live with" or to work with would have. We believe that a subject faced with a sociometric test chooses others in terms of how well their actual behavior measures up to his standards of what behavior ought to be. These standards we shall call *norms* and *values.* Both are ideas. A *norm* is a person's idea of what behavior ought to be in given circumstances, and norms can often be realized. A *value* is a person's idea of what is desirable, what he or others ought to want, not necessarily what he actually wants (Kluckhohn, 1951). Values are hardly ever fully attainable. If riches or a high score in bowling are values, it is hard to be too rich or to get too high a score. The line between norms and values is obviously not sharp, and we shall not insist on always maintaining it here.

In the discussion that immediately follows, we shall treat the norms and values of the members of a group as constants, not as variables. The pragmatic justification for this is that norms and values, being ideas in people's minds and thus under less direct pressure from external circumstances, probably change more slowly than actual behavior. We shall also assume, and show, that the results of sociometric testing make no sense unless we assume that a certain number of norms and values are held in common by most members of a group. The degree of consensus may depend on the members' similarity in cultural and social background, and also on the length of time the members have been in interaction with one another. The norms of members probably become more similar with time, but there seem to be no empirical studies of this relationship. Note that the norms and values of the members of a group are also assumed to be *many,* and we make no assumption about the logical consistency of norms among members of a group.

The actual behavior of a person, which others evaluate in terms of their own norms and values, we call his *activities.* These are the things he *does,* as distinguished from his internal states of feeling (sentiment) and his sheer contact with others (interaction). In the sociometric test, a person chooses, or expresses his liking for, another person to the degree that the other's activities realize the chooser's norms and values. By its very nature, the sociometric test does not

just examine the interpersonal sentiments of the members of a group but the *relation* between sentiment, activities, and norms and values

Let us now turn to some of the actual findings on the subject of this relation. Moreno's own study (1934) was a pioneering work describing the method of sociometry and advancing many intriguing hypotheses rather than presenting a full analysis of a body of data. A more detailed study of some of Moreno's subjects is that of Jennings (1943, 1950), which can serve as a take-off point for an examination of other work in the field. This study was made in a correctional community of more than four hundred girls, living in cottages holding some twenty girls each. In a series of sociometric tests allowing unlimited choices, each girl was asked to list in order the girls she would choose, and those she would reject, to live, work, study, and spend her leisure time with. Jennings found that neither choice nor rejection was random certain girls were chosen, or rejected, more often than one would expect on the basis of chance, and certain others less often. Jennings divided her population into the "overchosen," the "underchosen," and the "average-chosen," and she interviewed the housemothers about the behavior characteristics of each girl. The overchosen were most often mentioned for all forms of behavior commended by the housemothers, followed by the average-chosen and the underchosen, and least often mentioned for behavior complained of by the housemothers, except in the categories of "rebellious," "initiatory," "retaliatory," and "reticent" behavior. Jennings also talked to some of the girls about the reasons why they chose or rejected others, and she showed, at least impressionistically, that the choice or rejection of a person depended on the extent to which her activity lived up to the norms of the chooser. If, moreover, we make the apparently reasonable assumption that people cannot reach the same judgments without holding much the same standards, then an unknown but important number of the girls must have held similar norms, or Jennings would have found the distribution of choices much more nearly random than it was in fact. The norms of the housemothers must also have resembled those of the girls, except for rebellious behavior and the like, which the girls might well admire more than their bosses would

Now let us try to state Jennings' finding as a functional relationship. The sociometric test may take many forms and be scored in many ways, but let us agree to say that, whatever method is used, a member's *rank* is measured by his sociometric score, where a high score means that he is well-liked by other members of the group. Then Jennings' finding is that *the more nearly a member in his activity realizes the norms and values of the group, the higher his (sociometric) rank*

One of the jobs of theory is to show that apparently independent findings are not so in fact, but rather corollaries of a single more general hypothesis. A number of Jennings' subsidiary findings follow at once from the hypothesis we have just stated We choose only one as an illustration She found that *mutual* choice was highest among her overchosen girls. Now to the extent that norms were shared by members of the community she studied — an assumption we have accepted for the moment — the members would choose one another according to the same standards, which would further mean that girls themselves highly chosen would tend to choose girls highly chosen by others, and this would at once result in a high degree of mutual choice within the overchosen category Further investigation along these lines, which we shall not undertake here, leads at once to an examination of the *matrix* of choice in a group.

The hypothesis we have stated is not a particularly startling one· it corresponds at once to our intuitive notions of the process of choice, but this does not make it any less important, especially as it has been reached over and over again in studies of groups of many different kinds. Let us mention only a few. Lundberg and Lawsing (1937), in a study of an American rural community, showed that the number of sociometric choices received by a member of the community varied with his score on a socio-economic status scale. Schweitzer (cited in Loomis and Beegle, 1950) asked the members of a rural church to name five other members whom "he would invite to his home to discuss matters of concern to the church and community." The findings indicate that members of the upper and middle classes choose persons of the same or higher social status than themselves more often than would be expected by chance, and those socioeconomically beneath them less often than chance expectancy. Members of the lower class also tended to choose those of higher rank more often than chance, and chose others of lower-class rank less often than chance. Newcomb (1943) showed that in a college dominated by a "liberal" climate of opinion a person's sociometric score tended to be higher the more she conformed in her activity and opinions to liberal norms. And French (1951) showed that sociometric rank within a

company of naval recruits was related negatively and significantly to the number of a person's disciplinary offenses and attendances at sick bay. In every case a person's sociometric rank varies with the degree to which his activities realize what we presume to be the norms of the group The precise *nature* of the activities varies, the relationship remains See also French and Mensh (1948), Maucorps (1949), Loomis and Powell (1949), Polansky, Lippitt, and Redl (1950), Powell *et al* (1951), Lemann and Solomon (1952).

As for studies in which rank was assessed impressionistically rather than by the administration of a sociometric test, Homans (1950), in a reappraisal of the Bank Wiring Observation Room study in the Western Electric researches (Roethlisberger and Dickson, 1939), pointed out that the most popular man and the higher-ranking subgroup within the Bank Wiring group as a whole were those whose activities most nearly realized the norms of the group, particularly the output norm. And in a similar reappraisal of Whyte's (1943) study of a street-corner gang, Homans cited Whyte's finding that a member's rank tended to correlate with the "goodness" of his activities, the correlation being especially clear in the case of a measurable activity like bowling. Whyte (1948) also demonstrated the relationship between a restaurant worker's rank and the kind of food he works on It seems that salads rank high in our culture, and fish low.

We now turn to somewhat more complicated findings Festinger, Schachter, and Back (1950) studied the relationship between sociometric choice in a housing community, the standards — in our language, norms — of the different courts into which the community was divided, and the number of persons in each court who deviated from standards of behavior in regard to the tenant organization. The investigators found that the higher the proportion of within-court choices, the smaller the proportion of members who deviated from the court standard. The finding is not stated in terms of the relative rank of individuals or of the degree of their conformity to group norms. Instead the variables are two-valued· a member either is, or is not, chosen, and he is either a deviate or a conformer, but with this difference, the finding is in accord with our hypothesis, for if a member's choice of another varies with the degree to which the latter's activities conform to group norms, then it follows that if many conform, many will be chosen.

The experiment of Gilchrist (1952) on the factors influencing choice of partner for a two-person task further points up the relation between choice and the "goodness" of a member's activities. Gilchrist found that when individual subjects worked on the same intellectual task, and some were made to fail while others succeeded, most subjects tended to choose as a partner for a second and similar task a person who had been successful in the initial task. In the second phase of the experiment, some subjects were paired with persons they had chosen while others were not, and some of each type of pair were made to succeed (as a pair) while others failed. When subjects were given a sociometric test involving several criteria, two tendencies were noticeable: to choose a partner who had been initially successful, and to choose a partner with whom one had previously worked. Gilchrist's results do not indicate unequivocally the relative strength of these two tendencies, but in general one can conclude that the former is stronger than the latter when the criterion of choice is either further work on the same problem or similar "intellectual" activities, while the latter is more significant when comparatively "social" activities are involved. Besides the main result, note two subsidiary findings: the relation between choice and *previous interaction,* and a tendency to differentiate "task" choice from "social" choice. Both of these findings will come up again.

On the theory that if x varies as y, then y varies as x, we should expect to find that if positive choice varies with "goodness" of activity, then appraised "goodness" of activity should vary with positive choice. Horowitz, Lyons, and Perlmutter (1951) studied the relation between sociometric choices and the readiness of members to endorse each other's statements in a discussion. They found a significant difference in the ratings of "support" given to statements associated with liked and disliked members. If any given individual liked the author of one of these acts he was likely to like the act too (although the authors do not take a stand on the *direction* of the causal relationship). Horowitz, Lyons, and Perlmutter also found that a member believed his evaluation of a statement was shared by others whom he liked and not shared by others he disliked. This is clearly an instance of expecting all the people you like to agree with you in evaluating activities or, in other words, to agree with you on what constitutes a group norm. And, to hark back to the earlier difference reported, you are more likely to think that what people you like are doing is a "good" activity than to think it about people you dislike. If, of course, the norms of a group *change,* the members' activity remaining un-

changed, then the distribution of choices will shift. An unusual and little-known study by McCandless (1942) demonstrates this McCandless studied the members of two dormitory cottages at a training school for adolescent boys over an eight-month period During that time one cottage (experimental group) underwent a change in the form of its government from an adult-dominated quasi-autocracy to greater self-government The control cottage retained its autocratic form of government throughout the observation period. Before the change had begun the boys in both cottages made sociometric choices on a leisure-time criterion, and were rated independently by their adult supervisors on "dominance." Reasoning that "the openly dominant boy in an autocratic society will be admired . . . because he dares to react in the fashion in which all boys would like to react if it were not for the fear of punishment or failure involved" (p 531), McCandless expected and found a high positive correlation between rated dominance and sociometric popularity in both experimental and control groups *before* the period of "democratization" began. When McCandless repeated his tests eight months later, however, he found that the correlation had dropped until it was not significantly different from zero in the experimental group, while it actually increased in the control group At the same time, there was a significant increase in the popularity of the six originally least dominant boys and a noticeable (though not significant) decrease in popularity of the six boys who had originally been rated most dominant.

Another aspect of the "goodness" of an individual's activity, in the eyes of another, is measurable in terms of the community of values the two share. Several studies have demonstrated the tendency for friends or persons sociometrically chosen to have similar values to those of the chooser Richardson (1940) studied 97 female college students and 44 adult women and found a low but significantly positive relationship between the Allport–Vernon value scores of pairs of friends. There was also a significant difference between the correlation of value scores of friends and that of randomly paired individuals in the same sample Precker (1952) asked 242 students and faculty members to rank 39 values in order of importance and also to choose fellow students with whom they would like to keep in touch after college, and to choose a faculty advisor. He found a consistent tendency for subjects to choose associates whose values resembled their own, and noted that the tendency was most marked when the choice was mutual Such findings are not invariable, however (cf Reader and English, 1947).

Jacobson, Charters, and Lieberman (1951) studied the expectations of foremen, shop stewards, and workers in a factory regarding the way a steward should behave They found that most stewards and most workers expected the steward to take an "active" part in promoting the interests of the workers, but that most foremen expected stewards to be "passive." In our terms, stewards and workers had different norms about the stewards' behavior than foremen did These investigators report no detailed data on choice or sentiment, but they did find that "deviant stewards" (i e., those who felt the steward should play a "passive" part in shop activities) were more likely than typical stewards to report easy relationships with typical foremen Correspondingly, foremen who deviated from their group norm in believing that stewards should be active in promoting the welfare of the men were more likely than typical foremen to report comfortable relationships with typical stewards This finding helps to extend our hypothesis about the relationship between norms and sentiment *to the degree that the activities of the other individual in a reciprocal role relationship conform to the norms of one's own group, one will like him*

A further finding by these same investigators points to the interrelationship of norms and values. They considered the degree to which workers identified with the values of management or with those of the union, and found that when "stewards did not involve men in joint participation (in planning or executing an activity) and foremen did . there was marked rejection of union values by the workers" (1951, p. 24). However, when foremen did not involve workers in planning but stewards did there was not a corresponding rejection of company values To Jacobson, Charters, and Lieberman this finding means that workers generally expected stewards to ask for their help in settling union affairs but did not expect foremen to call upon them for discussion of company matters. Thus, not only the steward, but the values of the organization he represents are likely to be rejected (disliked) when he fails to live up to group norms, but behavior that is objectively the same is not regarded as failure to live up to norms when the foreman is the central figure When the foreman *does* live up to a group norm (even one that is ordinarily not thought to apply to his conduct) he and the value he represents are likely to be the object of positive sentiment, the authors found.

Multiple norms and unshared norms. These last studies, which raise the question of the sharing of norms and values, force us to ask whether certain of our assumptions are in fact justified and, if they are not, what consequences flow therefrom We have stated that the norms of the members of a group are many, but we have in fact analyzed the data on the assumption that a member conforms about equally well to all of the norms We have stated that the members of a group need not necessarily share all its norms, but we have in fact analyzed the data on the assumption that they did. Let us take up these assumptions

There is a good deal of evidence that the first assumption is often true Homans (1950), following Roethlisberger and Dickson (1939), showed that in the Bank Wiring Observation Room one clique came closer to realizing the output norm than the other and was "better" than the other in such matters as style of conversation And Whyte (1943) in a study of a street-corner gang showed that the rank of the members in bowling scores tended to agree with their rank as determined by performance in other activities. In short, a person who ranks well or badly on one criterion will tend to rank well or badly on others, provided, we may add, that the criteria represent shared values of the group.

Sociometric studies have sometimes shown the same thing. Jennings (1943 and 1950) found a considerable overlap between girls chosen on the criterion of living with them and those chosen on the criterion of working with them, though not, as we shall see, on that of spending leisure time. In a study of the members of a college sorority, French and Mensh (1948) found that girls highly chosen as roommates tended also to be rated highly on such characteristics as sociability, fair-mindedness, and humor, but that there was no significant correlation between sociometric choice and ratings on punctuality, intelligence, and self-confidence. Note that the former characteristics are much more apt than the latter to represent shared values of college girls. Other studies showing that a person's rank on one criterion tends to correlate with his rank on others are those of Bronfenbrenner (1944), Richmond (1950), Klein (1952), and Bates (1952).

The mechanism behind these results may simply be that one person sees another person as a whole — he either "likes" him or does not — and does not distinguish between the various reasons for liking him But there may be a more positive force at work. Benoit-Smullyan (1944) posited a tendency that he called "status equilibration" — a tendency towards the appearance of a high degree of correlation between different forms of rank. Fenchel, Monderer, and Hartley (1951) studied this equilibration tendency and showed, moreover, that where persons feel they have unequal ranks in different groups they want to raise their rank in the groups in which they stand lowest, that is, they try to equilibrate their rank at the highest level And Homans (1953) in a study of different job groups in an office showed that workers complained about the *relative* rank of their job when it was one that ranked better than other jobs on several criteria but not on others When all the rank characteristics of a job were "in line" with one another, the workers on the job might not like the job particularly, but they did not complain about its relative rank. We can, then, tentatively formulate the hypothesis that to the degree that a member's activities achieve a given rank according to some of the norms of the group but not others he will try to act so as to bring the lower-ranking activities up to the higher

Let us now turn back to a study that shows, not a similarity of rankings on different criteria, but a difference. Jennings showed that in her community of girls choice on the criteria of living together and working together tended to overlap, but choice on the criterion of spending leisure time did not overlap to nearly the same degree. The girls made fewer choices for leisure than for living-working, the proportion of choices to rejections was greater, the percentage of mutual choices was greater, and the persons a girl chose to spend her leisure time with tended, with some exceptions, not to be those she chose for living-working.

And yet there were certain connections between the patterns of choice on the two kinds of criteria. The more often a girl was chosen for living-working, the more often her choices for leisure were reciprocated. Finally, although this is not altogether clear from Jennings' statement, a girl tended to choose for leisure other girls who were roughly her sociometric equals on the living-working criterion.

These findings of Jennings' get support from a study by Schweitzer (cited in Loomis and Beegle, 1950), who found that rural church members ranked others differently on two criteria: community leadership, and desirability as co-workers in discussing community and church matters. Further confirmation and an interesting addition to the finding of differences in ranking on different criteria comes from an isolated finding of Lippitt's (1948). In a study of discussion groups over a period of several

weeks, he found an average correlation of about 70 between leisure-time and productivity choices on the first of day of group meetings, which declined to about 55 by the third week The differentiation between working and leisure choice does not show up at once but takes *time* (See also the section on Social Process)

It is not clear that we have to develop a new hypothesis to handle these facts, although we may have to be more careful to specify what is meant by "the norms of *the* group." The group interacting in leisure-time activities can be much smaller than that interacting for the purposes of living together in a cottage or working together in a shop A girl need (and in fact does) choose a smaller number of others for leisure-time activities The leisure-time group is a different group from the living or working groups and may therefore have different norms Since it is smaller, a girl may choose persons whose activities realize her own idiosyncratic norms.

But who are these persons? It follows from our main hypothesis that *similar* activities make for similar rank. If persons similar in activities are also similar in norms, including what we have called the idiosyncratic ones (those not shared by other members of the group), then we should expect to find a girl choosing for leisure those others who are her sociometric equals on the criteria of living and working Our expectation is realized.

The jump from small groups to society at large may be too great, but note the similarity of Jennings' finding to one of the most obvious features of a class structure· people tend to choose their friends for informal, "social" intercourse among those who are roughly their equals in the formal organizations of society.

There are a good many "ifs" in the argument we have presented above. Let us cling to the facts, only adding that it is not yet clear that we must introduce a new hypothesis The relation between sentiment (choice), activities, and norms may not be different for leisure-time and living-working groups, but the groups themselves may differ in size and norms, while overlapping in personnel. Jennings (1947) distinguished between these two kinds of groups and gave them special names: "psychegroup" for the leisure-time association, and "sociogroup" for the living-working one. We prefer to say simply that different persons may be chosen, well or ill, in different groups, without committing ourselves to any classification of types.

To anticipate a little — we do indeed suspect that something more than mere differences in kinds of group is at stake here. Differential ranking on different criteria may have to do with the tendency for big differences in "task" rank to act as a positive damper on "social" interaction between persons As social structure crystallizes, forces emerge that prevent a member's living up to all the group norms equally well But we believe that these forces are generated by the exercise of social control, a subject that we shall deal with after we have developed the main generalizations about social structure For the moment, let us stick to our first approximation

Another possible exception to our hypothesis regarding the positive relationship between rank and degree of conformity to norms must be mentioned. It has often been observed that very high ranking members of groups (e g., members of aristocracies, oligarchies, or other powerful classes), who have a secure social position, do not conform as strictly to some group norms as do individuals of middle rank, nor are the former subjected to serious pressure to conform Rather, a certain tolerance of "eccentricity" among high-ranking members is the rule in many groups Hughes (1946) noted the same phenomenon in a small group of machine operators in a factory He observed that the group had a well-defined norm about how much production constituted "a good day's work," and further that a girl who was socially accepted could break the rate a little without serious consequences, while an outsider who did the same would be treated harshly. Homans, commenting on Hughes' finding, termed it "the factor of social security," adding: "Up to a point, the surer a man is of his rank in a group, the less he has to worry about conforming to its norms" (Homans, 1950, p. 144).

The point at which a high-ranking person must begin to concern himself with conformity has not been adequately studied, either in terms of degree of deviance or of the kinds of norms from which he is allowed to deviate. It seems reasonable to believe that both degree and kind of deviance are involved, but empirical evidence is wanting. For the time being, we shall have to treat this whole question as an unsolved problem and regard the finding that high-ranking members do deviate from norms as an instance of a limiting factor — whose exact value is unknown — on the operation of the relationship between sentiment and activity. We do not believe Hughes' finding to be a true contradiction of our fundamental hypothesis, but simply an indication that we have not (and presently cannot) formulate the relationship in a sufficiently sophisticated way to include the

complexity of very high rank Some such principle of limits may also hold at the very lowest ranks in a group

Let us summarize what we have learned in this section In examining research on the relation between sentiment, activity, and norms, we have generalized the findings to one basic hypothesis, which may be stated as follows. a member *O* of a group chooses or likes a member *P* to the degree that *P*'s activities realize *O*'s norms and values This hypothesis corresponds to our common-sense notions of choice, it is implied in the very nature of the sociometric test. And yet it sums up a large number of the facts, and thus offers another illustration of the "disillusion of generality." For to the degree that the norms and values are shared by the members of a group, the basic hypothesis takes the form· the higher the rank of a member the closer his activities come to realizing the norms of the group, and we have seen that further subsidiary propositions follow from this. "His activities" is of course ambiguous, as they may be many and may not all realize the norms equally well They *may* not, but we have given evidence that they often do, there is a tendency toward "equilibration of rank." To the degree that norms and values are not shared, to the degree that members may have different norms in different phases of group activity or, which may amount to the same thing, partially different or overlapping groups are involved, the process of choice as given by the hypothesis remains the same but different persons are chosen; and we have seen that further subsidiary propositions follow from this. We have cited apparent exceptions to the hypothesis, but our faith is that they cannot be true contradictions but rather the effect of variables other than those we have considered so far. To these other variables we now turn.

Sentiment in relation to interaction. Sentiment we have already defined. *Interaction* we may define as follows: When one member's unit of activity, however measured, acts as stimulus for another member's unit of activity, then the two have interacted. We may also say that the former has originated interaction and the latter has terminated it. Chapple and Arensberg (1940) gave an early operational definition of interaction as a class of observations of social behavior. Since their time the chief problems in measuring interaction have turned out to be defining a unit act and developing a reliable and useful scheme for classifying acts, Bales (1950), for instance, and Stephan and Mishler (1952) use different methods. Whatever method is used, the frequency of interaction between two persons over a period of time can be measured, as can the frequencies of their originations, receipts, or terminations of interaction The same process can be extended to other members of a group (provided the group is not too large for observation), so that it is possible to construct a "who to whom" matrix of interaction among the members. More crudely put, the study of interaction is a study of the pattern of sheer contact or communication between people, regardless of what messages are communicated or what activities the contact leads to.

In this section we are interested in the *relation* between observations of sentiment and the observations of interaction, although we shall also consider the relations of the different observations of interaction to one another.

Early studies of small natural groups, such as the Bank Wiring Observation Room (Roethlisberger and Dickson, 1939) and the Norton Street Gang in "Cornerville" (Whyte, 1943), showed an empirical tendency, of unknown generality, which Homans (1950), reviewing these studies, stated as follows· persons who interact frequently with one another tend to like one another. Later work has produced in abundance further evidence of this tendency. In a study of a boy's camp, Sherif (1951) showed that if the boys first associated freely with one another and were then divided into two groups kept somewhat apart, the number of sociometric choices a boy made of fellow members of his own group tended to increase over what it had been before the groups were formed. In a study of a university housing project, Festinger, Schachter, and Back (1950) showed that persons who had high opportunities, because of the position of their apartments in the community, to interact with one another, were highly likely to choose one another as friends. (On the same subject, see Merton, 1948.) In a sociometric study of three classes in a primary school, Potashin (1946) set up special discussion-interviews for pairs of friends (persons who had chosen one another) and for pairs of nonfriends. For the pairs of friends the amount of uninterrupted discussion was longer than it was for pairs of nonfriends. Potashin also found that the differences between pair members in the amount of talking each one did and in the numbers of initiations of interaction were less for friends than for nonfriends. Bovard (1951) set up four groups, two of which were "leader centered" and two "group centered" in the sense that interaction other than that between the members and leader was experimentally discouraged in the former and encouraged in the

latter Remarks directed to other members as a proportion of total member remarks were in fact significantly higher in the "group-centered" situation than in the "leader-centered" one Moreover, the average choice of other members on an affect (liking) scale was greater in the "group-centered" groups, and the relationship between interaction among members and average level of affect (liking) was approximately linear.

Note that in the Sherif, Festinger, and Bovard studies an increase in interaction led to an increase in friendship, that is, interaction was the independent variable, while in the Potashin study an increase in friendship led to an increase in interaction, that is, friendship was the independent variable. More generally, the two are mutually dependent, and if friendship is a function of interaction, then interaction is a function of friendship But a hypothesis like "The more they like one another, the more they will interact with one another," while a reasonable first step, is obviously inadequate It does not discriminate enough It does not tell us the relationship between how much *each member* likes every other member and how much interaction *each* gives to, and receives from, every other. Let us look at some studies that begin to make this discrimination In attempting to make this discrimination, Homans (1950) stated the following hypothesis that seemed to fit the data. the higher a member's rank, the larger will be the number of persons who originate interaction with him. This hypothesis is stated in terms of *range* of interaction (number of persons interacting) rather than in terms of frequency, and range is not a very useful measure in small groups where each member may interact with every other. Let us say, more simply, then, that the higher a member's rank the more interactions he will receive from other members. Interaction tends to flow from low-rank people to high-rank people.

There is a good deal of evidence to support this hypothesis. Kelley (1951) separated subjects experimentally into a high-rank (status) group and a low-rank group doing tasks in different rooms under conditions such that they could send messages to each other containing information irrelevant to the task. He found that the low-rank group sent more messages to the high-rank one than vice versa. The groups were further subdivided according as the members were persuaded that they could move from one group to another, thus creating four groups: high nonmobile and mobile, low mobile and nonmobile. The number of messages sent to the *other* group increased steadily from group to group in this order, the low nonmobile group sending most Thus the possibility of mobility seems to decrease the effect otherwise attributable to high or to low status Bates (1952) in an unpublished study of the relation between interaction, group norms, and various sociometric tests in a discussion group showed that the rank order of the members in number of interactions *received* correlated highly with their rank order in a sociometric test in which each member was asked to rank the others in terms of their contribution to carrying out the assigned task of the group.

But the extent to which a sociometric ranking exists is always problematical. We can take care of this difficulty if we state the hypothesis above in a more general form the more member *O* likes member *P*, the more *O* will originate interaction with *P* To the extent, then, that a genuine sociometric ranking exists, such that each member ranks the others from top to bottom in the same order, the higher a member ranks, the more interactions he will receive

So far our hypothesis enables us only to discriminate between members regarding the amount of interaction they will receive We need a hypothesis telling us who originates interaction as well as who receives it, and luckily we have some evidence to help us frame one Norfleet (1948) found for two of the discussion groups she studied at the Bethel Training Laboratory that the rank order of members on a sociometric test, productivity being the criterion, correlated highly with rank order on participation in the discussion, that is, the amount the person originated interaction Bates (1952) and Klein (1952), both studies unpublished, found similar correlations between sociometric rank and interaction originated Still another study suggests this finding indirectly Homans, in an unpublished study of a group of clerical workers so large that the observer could only see what workers were talking together and not who originated and received interaction, found that sociometric ranking on the question: Who are your friends in here? correlated highly with the number of conversations a member participated in In short, the evidence is that the higher a member's rank the more often he originates interaction as well as the more often he receives it (see also Homans, 1950).

Let us lay aside for the moment the question whether this last hypothesis is a truly fundamental one, and ask ourselves what kind of an interaction matrix is emerging from the last two hypotheses taken together. A low-ranking member *R* would originate interaction to a

high-ranking member, *O*, more than he would to a middle-ranking member, *P*, but since *R*'s general level of interaction is low, he would tend to originate interaction with *O* less than *P* would. *O* would tend to interact with *P* more than with *R*, but since *O*'s general level of interaction is high he would tend to originate interaction with *R* more than *P* would. High-ranking members would tend to interact with one another more often than would low-ranking members — a conclusion supported by Klein's work (1952).

An interaction matrix is more easily seen in figures than described in words. The interesting thing about the matrix we have just tried to describe is that it is very similar to the one actually found by Bales *et al* (1951). He found that when the frequencies of origination in a session of a six-man problem-solving discussion group were listed in order, and the same done for other sessions of the same or different groups, and the originations and receipts of the most frequent originator, second most frequent originator, etc., in each session were summed up together, the aggregate matrix that resulted was the following:

AGGREGATE MATRIX FOR 18 SESSIONS OF SIX-MAN GROUPS
(Adapted from Bales, 1953)

Person originating act	To Individuals						Total to individuals	To group as a whole	Total initiated
	1	2	3	4	5	6			
1		1238	961	545	445	317	3506	5661	9167
2	1748		443	310	175	102	2778	1211	3989
3	1371	415		305	125	69	2285	742	3027
4	952	310	282		83	49	1676	676	2352
5	662	224	144	83		28	1141	443	1584
6	470	126	114	65	44		819	373	1192
Total received	5203	2313	1944	1308	872	565	12205	9106	21311

Several attempts have been made to develop formulas that will predict the percentages of receipts and originations in a matrix of this sort (Stephan, 1952), the most successful being that of Stephan and Mishler (1952). We shall concern ourselves only with the qualitative characteristics of the matrix, which are the following:

1. The higher the rank of a member in originations to specific individuals, the higher his rank in originations to the group as a whole. (*Rank* is used in its statistical sense, not in the sense of status or prestige.)
2. The higher a member's rank on originations, the higher his rank on receipts.
3. In any pair of members, the lower-ranking tends to originate more to the higher-ranking than vice versa. That is, origination tends to flow towards high rank, thence to the group as a whole.

Bales' finding is statistical. The general matrix emerges when the matrices of enough separate group sessions are added together. Individual sessions departed from the general pattern, and yet the pattern itself can hardly have emerged by chance. Powerful forces common to most of the groups must have been at work.

The question is what forces they were and how general they are So far, Bales has told us little about the determinants of the pattern. It is simply an observed fact. We do know that Bales' groups were small (three to ten persons); they were problem-solving discussion groups, for the most part they were free to organize themselves in any way they saw fit; and they met only once. Are the determinants that tended to produce the pattern specific to groups of this particular kind? We doubt it. To some extent the pattern follows directly from the mechanics of *inter*action itself: if someone talks to you, you are apt, though not wholly certain, to reply to him, so that a person who originates much is likely to receive much interaction. But what variables can we correlate with high or low origination in the first place? We have tried to show that Bales' findings would tend to emerge through the operation of certain relationships (for which there is evidence independent of Bales' work) between sentiment, interaction, and activity. We suspect that the relationships (equations or hypotheses) may hold true continuously but result in concretely different interaction matrices as the variables in the equations take different values. The values

that determined the Bales matrix may just be, for reasons still unknown, ones that appear particularly frequently

Sentiment in relation to interaction Vertical subgroups. So far, we have discussed the findings of research as if we were dealing with single groups, but have not considered the nature of the ties *between* groups. We raise this problem here because *group* is sometimes defined in terms of interaction· within a given period of time the members of a group interact more often with one another than they do with other persons whom we choose to consider outsiders (Homans, 1950, p. 84).

So far as there is *no* interaction between the members of two groups, no problem arises. We can treat each group by itself And as soon as there *is* some interaction, the question whether we are dealing with one group or more becomes a matter of terminology. We can say we are dealing with a single group divided into subgroups, or we can say that we are dealing with two (or more) groups where members of one interact with members of the other. The problem of analysis, however, remains the same whatever we call the situation.

With this as preliminary, we can turn to the research. Roethlisberger and Dickson (1939) showed that when a working group (the Bank Wiring Observation Room) was divided into subgroups or cliques, the members of a given clique tended to interact with one another rather more than with members of the other clique. Friendships tended to be intraclique, while hostilities tended to be interclique. No new hypothesis is required to handle these facts. We have already stated that friendships and relatively high interactions tend to go together. We believe the converse to be true, that hostility will be accompanied by relatively low interaction provided that there are no constraints to enforce interaction.

More interesting are the studies that suggest where the interactions and sentiments *come from* in one group and where they *go to* in the others. Both Jennings (1943 and 1950) and Festinger, Schachter, and Back (1950) showed that persons chosen highly (high-ranking) by members of their own groups (houses or residential courts) tended also to be chosen highly by members of other groups. (Implicitly, though not explicitly, the groups here are defined by interaction. They are people who, because they live close to one another, have at least high opportunities for interaction.) Again, no new hypothesis is required. To the extent that the members of different groups share any norms, then on the basis of an earlier hypothesis, we should expect persons chosen highly by their own subgroup to be chosen highly by outsiders also But by *which* outsiders? Whyte (1943), followed by Homans (1950), in an analysis of a street-corner gang, showed that the leader of the gang interacted more, and had more friendships, with the leaders of other gangs than did any of his followers. Whyte also observed that when the leader was not present the gang itself tended to operate as a set of independent subgroups. Horsfall and Arensberg (1949), in a study of working teams in a shoe factory, showed that the persons who had the greatest percentage of originations of interaction over responses in relations within their own teams tended also to take part in most interactions with members of other teams. Such findings seem to be related to Jennings' discovery that mutual choice is particularly common among persons who are themselves highly chosen

As for low-ranking members, Sherif (1951) divided the boys at a summer camp experimentally into two groups, keeping the two in a state of rivalry and low interaction with each other. He found, as we have already reported, that intragroup choice went up in both, but he also found that the low-ranking members were the ones that showed most hostility to the other group. Sherif does not tell us *which* members of the other group these low-rank boys showed most hostility towards, but we may suspect it was the low-rank ones.

The tenor of these findings is clear. If there are two groups, the members of each interacting within their own group rather more often than with members of the other group, intragroup friendship with its concomitant, some degree of intergroup hostility, tends to appear But within this over-all tendency, the members tend to differ by rank. High-ranking members of one group tend to interact more often with members of other groups (and especially high-ranking members) than do the rank and file Members of one group, so far as they like members of another group at all, tend to like high-ranking ones Low-ranking members tend to dislike the other group most, and, above all, it seems likely, the low-ranking members of that group. But note that this also happens within the group: low-ranking members tend not to choose other low-ranking members. One way of summing up the facts is to say that two or more groups are linked together at their tops, if at all, and that foreign relations are particularly the concern of the head of a state. Another way of summing them up is to say that when we find two or more different groups in contact with one another, the interaction-sentiment

matrix that arises *between* them very much resembles the one that arises *within* any one of them. We dare not say that this always occurs, but it appears to be very common.

Sentiment in relation to interaction. Horizontal subgroups Besides vertical subgroups — i e., those containing members of various ranks, there may also be subgroups made up of people of roughly equal rank who interact frequently with one another — the horizontal, stratified, or "class" type. The possibility of finding such horizontal subgroups depends in part on the way members make choices on the sociometric test and the way the data are manipulated in the analysis. If every member of a group makes the same number of choices and each of these choices is given equal weight, then there is bound to be some conflict between mutuality of choice and the existence of a ranking of members. For if, under these conditions, each person chose only the persons choosing him, everyone would get the same number of choices and no ranking would exist. It follows, therefore, that if, in fact, a high degree of mutual choice is found among the well chosen, a low degree of mutual choice must exist among the underchosen. (A number of studies have demonstrated that there usually is a high degree of mutual choice among the highly chosen members of a group — see Jennings, 1943 and 1950, Weber, 1950; and Lemann and Solomon, 1952.)

Since the existence of a ranking tends to mitigate against mutual choice, except at the upper rank levels, and since choice and interaction tend to be related, we should hardly expect to find horizontal subgroups *at every rank level,* provided that choices were made on one criterion (norm) only. But if more than one criterion of choice is involved, this limitation is removed. We have already cited Jennings' finding that choice on association in a common task tends to differ from choice on more "social" criteria such as spending leisure time, choices on the latter going to sociometric equals on the former. If, as before, choice and interaction tend to be related, then a differentiation of task-oriented and social-oriented choices would produce a group whose members interacted most with high-ranking people in the "task" situations and with equals in "social" situations. Homans (1950) did, in fact, postulate tendencies both to interact "up" and to interact "sideways." The relative strengths of the two tendencies may well produce different resultant interaction and choice patterns in different situations. In a sociometric study of a rural community, for instance, Lundberg and Lawsing (1937) found that more than one-third of their subjects, forming a middle group in socioeconomic status, tended to name as friends persons within the status classes nearest to their own, but skewed their choices somewhat on the side of higher scores. That is, they chose up but only a little up. See also Smucker (1947). This may be one possible resultant of the two tendencies. But we must still ask why "task" choice and "social" choice should differ. We have suggested that big differences in "task" rank between two persons tend to act as a positive block to "social" interaction between them, and we shall expand this notion in a later section.

The "relational analysis" technique of Tagiuri (1952), when applied to the study of the relation between the status of chooser and chosen in a large boys' boarding school, throws further light on the tendency to choose "upward" (Tagiuri and Long, 1953). The boys were allowed unlimited choices of those with whom they would like to room and were also asked to guess by which boys they would be chosen themselves. It was found that unpopular (low-ranking) boys chose upward in the social rank array, but guessed that they would be chosen by others who were more nearly their social equals. The persons chosen by popular boys, however, tended to be of the same rank as the persons they guessed would choose them, although that rank might be equal to or below the popular boys' own. Thus, rank exists because of the tendency for most of the population to *choose* from among a relatively small number, but *guesses* seem to reflect a "realistic" perception of one's own social status. The tendency observed resembles a familiar phenomenon of social mobility. Low-ranking individuals aspire to higher ranking companionship. High-ranking individuals choose approximate equals and expect to be chosen by such equals.

Groups may also be divided *both* horizontally and vertically. The Bank Wiring Observation Room (Roethlisberger and Dickson, 1939) was so split. There were two cliques, one "better" than the other because the rank of its high-ranking members was higher than that of the high-ranking members of the other clique, but each containing low-ranking members who would have held roughly equal rank if there had been no clique division. As it was, the lowest-ranking man in the lower-ranking clique had the lowest over-all ranking in the group — at least in the sense that the most menial activities were assigned to him.

The most interesting experiment with a division of this kind is that of Thibaut (1950). A

number of boys, who had known each other before the experiment, were divided into teams on the basis of a sociometric test. The teams were equated in the amount of choice given to other members of the team and in the proportion of high-rank (called "central") and low-rank ("peripheral") members. Some of the teams were then experimentally made "underprivileged" by being given the less pleasant tasks in interteam contests, and some of these underprivileged teams were later allowed, in answer to their protests, to get the more pleasant tasks. The experimenter tried, in effect, to make some teams of lower rank than the others.

The "unsuccessful" low-rank teams and the consistently high-rank teams both showed a significant increase in in-group choices, the latter slightly more than the former. In the former the increases took place almost wholly among the central members, the peripheral members showing some tendency to shift their choices, while in the latter the increase was general, the peripheral members showing a slightly greater increase than the central ones.

Interaction from the low-rank teams to the high increased until the former became "successful," when it fell off The absolute numbers of serious aggressive actions from the successful low-rank teams to the high-rank ones increased even after that, however, especially from the central members.

The peripheral members of low-rank teams displayed the largest number of attempts to leave the group entirely. One of the most interesting findings was the following· "When central and peripheral members of low-status teams are compared, the latter are seen to receive significantly more aggressive communications from the central members of high-status teams . . . On the other hand, the central members of low-status teams receive a significantly greater number of aggressive communications from the total high-status team (i.e., where the observer recorded that the entire high-status team initiated an aggression as a group or at least in unison)" (Thibaut, 1950, p. 276).

This experiment illustrates the increased intragroup choice that follows separating a body of persons into two distinct subgroups, and perhaps also the tendency for interaction to flow from low rank towards high. But these familiar findings are complicated here by the presence in both groups of both high- and low-rank members. The increased in-group choice among low-rank members of the high-rank group may be the equivalent of the finding that mutual choice tends to be high among high-rank persons these low-rank members of the high-rank group are now of high rank relative to the other group. But the tendency for members of separated subgroups to choose within their own group is overridden for the low-rank members of the low-rank groups by the further tendency for choice to go towards persons carrying out the "best" activities. That intergroup hostility should be directed especially at low-rank persons of the other group is not surprising, but the fact that when one group as a whole shows hostility this is directed towards the leading members of the other group is new. Apparently the low-rank members of the high-rank group dare show hostility towards the high-rank members of the other group only when they have the support of their whole group. The experiment also shows the need for a theory that states not only the relationship between two variables in the behavior of two persons toward each other, but also the resultant group structure that will emerge when many persons are members and the variables take different values in the behavior of each member to every other.

Interaction in relation to activity. We turn now to the last of the relationships among our three classes of variables. One kind of relationship between interaction and activity suggests itself at once. For if the liking of one man for another varies with the "goodness" or "importance" of the other's activity, measured in terms of a group norm, and if the liking of one for the other also varies with the interaction he gives to the other, then it is reasonable to predict that the interaction he gives to the other will vary inversely as the "goodness" or "importance" of the other's activity, provided sentiment remains constant. Or, in symbolic language,

$$S_{op} = f(\iota_{op} \cdot A_p), \qquad (1)$$

where S_{op} is the liking of any member o for any member p; ι_{op} is the frequency of interaction from o to p, and A_p is a measure of the "goodness" or "importance" of p's activity in terms of some group norm — the higher the score the better the activity.

We do not imply that this is more than a first approximate equation for the social organization of a group. It refers to a relationship between only two persons in terms of a single activity, and thus overlooks the complexities introduced by membership in a group and interaction in terms of multiple activities. Nevertheless, it will help us guide our thinking for the moment.

The equation implies that as p's activities become more important, o will interact with

him less, sentiment held constant This corresponds roughly to everyday experience we may admire a man very much and thus want to associate with him, but we hesitate to "thrust ourselves upon him" if his job is rated much better than our own Of course, it is often true in fact that sentiment will not remain constant with changes in i and A Changes in sentiment are one way in which a system of relationships responds to changes in i and A enforced upon the system from without. The equation also implies that if p's activities decrease in goodness, o, another member of the group, will interact with him more, provided, again, that sentiment is held constant

Now let us turn to the facts Here the most important findings are those of Schachter (1950) Into small discussion groups, meeting for one hour each, he introduced persons to play, by design and for pay, the roles of "deviate," "slider," and "mode." The deviate maintained a distinct difference between his expressed opinion and the commonest (modal) opinion of the group, the slider began by acting like a deviate and then shifted his opinion by degrees toward the mode, as if he had let himself be persuaded, and the person playing the modal role stayed, as his name implies, in agreement with the modal opinion, whatever it might be. In sociometric tests, made after the meeting was over — and this, as we shall see, is an important point — the deviates were least chosen, that is, most rejected; then came the sliders, and after them the modes, these results illustrating our hypothesis to the effect that the further a member's activity departs from the norms of the group, the lower his rank in the group. But this finding, though pleasant to get as a confirmation of our earlier hypothesis, is not the one that interests us most now Schachter found that as the group recognized that the deviate *was* a deviate (which took a little time) interaction towards him increased. In short, as we "predicted," or, better, deduced from our equation, the further a member p's activity departs from the norms of the group, the greater the interaction from o, another member, to p.

So far we have given the impression that Schachter's discussion groups were all of the same kind. In point of fact, he carefully distinguished between four types. The groups were divided into those composed of members who expressed interest in the assigned topic for discussion in the group (high cohesive) and those whose members did not (low cohesive); and further divided into those whose members in fact discussed the assigned topic (relevant), and those whose members did not (irrelevant). Thus there were four types of groups: high-cohesive relevant, low-cohesive relevant, high-cohesive irrelevant, and low-cohesive irrelevant There was some evidence that interaction (communication) with the deviate increased most rapidly in the high-cohesive relevant groups, next in the low-cohesive relevant groups, and so on.

More interesting at present is Schachter's finding that in the high-cohesive relevant groups, and presumably in the others if the experiment had gone on long enough, communication to the deviate, after rising for a time, started to fall off. It rose most rapidly and started to fall off soonest for those who rejected the deviate most at the end of the experiment. We believe that this, too, can be predicted from equation (1) if we make one further assumption. In the discussion above, we assumed the liking of o for p (S_{op}) constant, and showed that a decline in p's activities would bring about an increase in interaction from o to him. But in the long run, S_{op} cannot be constant, but must decline as A_p declines, and must react to decrease the interaction rate from o to p. All we have to assume is that sentiment changes with time more slowly than interaction. The results are in accordance with our "predictions" so far as the high cohesive relevant groups are concerned, and might have been true of the others if the experiment had lasted more than one hour. Moreover, the more rapidly the liking of o for p declines, *and the lower it falls,* the lower the final interaction rate from o to p In this connection it is interesting that the persons whose interaction rate to the deviate started to fall off soonest were those who rejected him most at the end of the meeting.

Schachter does not say much about the content of the communications (interaction) directed to the deviate, but we shall probably not go far wrong in assuming that much of it is designed to change his activity, in this case his opinion, so as to bring it closer to the norm of the group. Interaction starts to fall off when a member decides that a deviate's opinion cannot be changed, and gives up trying.

Schachter's findings fit our equation (1) rather well and also help us to see that there are at least two reasons why one member may interact with another, first, because he *likes* or admires him, and second, because he wants to *control* his activity. If one member has a lower rank than the other, the first kind of interaction will tend to *go to* the other, and the second to *come from* him.

Naturally, Schachter's study tells us nothing about how the *deviate* distributes his interac-

tions, but a somewhat similar study by Festinger, Gerard, *et al* (1952) gives us explicit evidence on this matter. In this study, the experimenters established, without special coaching, two degrees of opinion perceived as deviant: one a single step removed from the general opinion of the group and another three steps removed. The conformers directed proportionately more of their interaction to the extreme deviate than to the slight (one-step) deviate, which is what our formula would predict. The extreme deviate who maintained his opinion unchanged did not simply reverse this process and direct most of his interactions to the conformers. Instead he directed proportionately more of it to the slight deviate, that is, to the person whose opinion was nearest his own. This also is predicted by our formula, which implies that, *sentiment held constant*, as a member's activity increases in "goodness," the interaction of another member toward him will tend to decrease. Therefore an extreme deviate would interact more with a slight deviate than with a conformer. Change in sentiment with time was not examined in this study.

These latest implications of our formula may have something in common with Homans' (1950) hypothesis that the more often one man exercises authority over another, the more the latter will cut down interaction with the authority figure towards the amount simply required by the job that both are doing together. To be sure, attempted control is something else than actual control (authority), but the point we are making now is the familiar one that persons in authority, whether formally recognized as such or not, are always the objects of ambivalent tendencies: one admires their rank and moves toward them, one fears their control and moves away from them.

Interaction and similarity of activity. But who are a man's social equals? Since rank varies with the nature of the activities carried on by the person ranked, his equals are apt to be persons whose activities are in some sense similar to his own. Homans (1950) found a certain amount of empirical evidence for the hypothesis that the more similar were the activities of two persons, the more frequent their interaction. In the Bank Wiring Observation Room the persons who did the same kind of job, "collector" wiring vs. "selector" wiring, tended to interact with one another in cliques. Horsfall and Arensberg (1949) showed the presence of a similar tendency within the working teams in a shoe factory. But in neither of these studies could the effect of job similarities be separated from that of spatial contiguity, similar jobs were also physically close to one another. See also Whyte (1948, p. 132). Later, Homans (1953), in a study of a clerical department in a large firm, a department in which several different kinds of job were done, found a strong tendency for workers to interact within their own job groups. Spatial influences were present, but not nearly so prominent as they had been in the earlier studies. At the societal level, a similar style of behavior on the part of members of the same class is one of the more visible characteristics of a class system.

Social Structure and the Environment

So far we have not explicitly considered the influence of the social and physical environment on the structure of a group. We have recognized that a group might be brought together by environmental forces, and that it might have certain tasks to carry out on the environment. We have recognized that the members might hold norms that they brought to the group from their experience in other groups of which they had been members. We have recognized these things, but we have, in effect, assumed that the environment of a group left the members free to develop any conceivable variation in social structure. There may be groups of this sort, but for most groups the influence of the environment is far more specific, and to this problem we now turn.

We shall consider first the influence of the physical environment, or ecology, and then the influence of the social environment. We shall proceed as if the environment directly determined social structure, neglecting the reciprocal effects of the latter on the environment. In many cases, for instance when we are analyzing the social structure of primitive tribes, the critical consideration is not that the environment immediately determines the social structure, but rather that the group must develop *some* form of organization that will enable it to survive in the environment. In effect, the environment does not say that the organization must be such-and-such; it only sets limits to the possible variation. It was these considerations that led Homans (1950) to define the *external system* of a group as that aspect of its sentiments, activities, and interactions, and of the relationships between these elements, that allows the group at least to survive in its environment.

Ecological determinants of social structure. The Bank Wiring Observation Room in the

Western Electric researches (Roethlisberger and Dickson, 1939) was designed to reproduce a "natural" environment as far as possible. One group of workers had their work places at the front of the room, others at the back The group in the front became the nucleus of one clique, the higher-ranking one, the group at the back became the nucleus of another, the lower-ranking one Every three wiremen had to work with, that is, interact with, a solderman in a soldering unit, and soldering units tended to become the nuclei of cliques The wiremen themselves were divided into two categories· connector wiremen and selector wiremen, and the former, through slightly higher pay and seniority, were given a higher evaluation than the latter. The connector wiremen formed the nucleus of one clique, the selector wiremen the nucleus of another. Every single aspect of the organization of work had an influence on the social organization, and the influences of the different aspects tended to reinforce one another. For instance, the leading clique had as its members persons who worked on connector wiring, at the front of the room, and with one exception in the same soldering unit. See also Horsfall and Arensberg (1949) and Gullahorn (1952).

Hughes (1946) observed that interaction patterns established on the job were maintained in the customary seating positions of employees at lunch in the plant cafeteria. Plant workers sat together at certain tables, officeworkers at others, while superiors and higher management personnel formed their own groups.

A number of other studies have reached the same kinds of result. Danielsson (1949), in a sociometric study of bands of Jibaro Indians, showed that members of geographically separated groups tended to choose favorably persons within their own groups, and that a person's tendency to express hostility towards others increased with the physical distance between them and him. Lundberg, Hertzler, and Dickson (1949) and Maisonneuve, Palmade, and Fourment (1952) showed that physical propinquity was a powerful factor in favorable sociometric choice. And Steinzor (1950) demonstrated an interesting relationship between physical position in discussion groups and the interaction patterns that developed. The groups were made up of about ten members sitting in a circle. Interaction tended to be less frequent between persons sitting next to each other than between persons more separated in place, that is, on opposite sides of the circle. Here it was not sheer physical propinquity that led to high interaction. Instead, the persons opposite, those most clearly seen, were the easiest targets for interaction. Again, the physical layout of the group helped determine the social distance between persons

In two studies of interracial housing projects, Wilner, Walkley, and Cóok (1952) found consistent tendencies for physical proximity of Negro and white families to lead to "more encounters under conditions conducive to recognition, greeting, and conversation" (1952, p. 52), and also to more extensive contact. Furthermore, there was a consistent trend for greater proximity to be accompanied by a higher degree of esteem for Negroes on the part of whites, and also for greater esteem to accompany more extensive contact.

Still more subtle is Festinger, Schachter, and Back's (1950) study of the relationship between physical layout and sociometric choice in a housing community. They found that persons living in apartments that opened directly onto the stairways of the buildings tended to receive a large number of sociometric choices, apparently because of their adjacency to traffic flow. Furthermore, among housing units opening on a court, choices were particularly apt to go to people in units centrally located. End and corner units were not nearly so likely to receive choices. Note that it was not sheer physical distance that determined the probability of contact, but what the investigators called "functional" distance, into which factors like paths of movement entered. See also Merton (1948).

Let us try to state more generally what results like these mean. The fact that persons are close together physically or hold jobs requiring cooperation (like the wiremen and the soldermen in the Bank Wiring Observation Room) means that there is a high probability of interaction between them. Once this initial interaction rate has been established by the environment, then the hypotheses stated in our section on internal social structure "take over," so to speak. For if interaction leads to friendship, two persons who are physically close and thus particularly apt to interact are more apt to become friends and develop the other attributes of a clique or subgroup than are two persons not physically close. The environment may be thought of as establishing initial or "boundary" values of the variables that enter the hypotheses of social organization and thus having an important effect in determining the final values after the group has developed over a period of time.

Social and psychological environment. Sheer physical ecology is clearly not the only environ-

mental influence on groups. Except perhaps in the most primitive societies, the members of a given group are, or have been, members of other groups, and we can conveniently consider the social characteristics they have acquired in these other groups as factors determining the initial values of the variables of social structure We have already pointed out the obvious fact that many of the norms of a group are determined by the cultural background of the members of the group. Again, persons who are of similar background outside the group being studied — similar in group memberships, rank, interests, etc, outside — tend to choose one another highly and interact with one another often *within* the group. To take one example, Lundberg, Hertzler, and Dickson (1949), in a study of sociometric choice within a college community, showed that persons from families with similar socioeconomic status in society at large tended to choose one another frequently within the college. Membership in the same college class, living in the same house, and sharing the same scholastic interests were also important determinants of choice.

Indeed, we should be careful not to attribute too much weight to physical ecology as a determinant of group formation. Loomis and Beegle (1950), in a study of a farm relocation colony, observed that the initial clique formations were based on geographical proximity of settlers, who had been "randomly" assigned their holdings in the new community and who were, presumably, not previously acquainted with one another. These cliques were influential determinants of uniformity of behavior in a crucial decision — to remain in or to leave the colony — and "leavers" tended to be grouped together in a geographical region as well as to have a high rate of mutual interaction (social visiting). Two years after the founding of the colony, however, when many members of "dissatisfied cliques" had moved away, the investigators restudied the social groupings and found that spatial proximity was no longer so important a determinant of visiting

In another study, Loomis and Beegle (1950) compared the visiting clique patterns of families who had been acquainted or who were related by kinship before moving to a subsistence homestead project with those of families who had been strangers prior to moving. Geographical proximity clearly played a much more important role in the formation of cliques among strangers. Hunt and Solomon (1942) found that being quartered in the same cabin was an important determinant of sociometric choice among young boys for only the first two weeks of an eight-week camp season.

It may well be that physical ecology is of greatest importance in determining interaction patterns in newly formed and temporary groups, and that, given some freedom of geographical mobility for members of the group, other considerations eventually become more important This conclusion is reinforced by the summary of Loomis and Beegle (1950) based on a large number of studies of clique groups in rural areas. These investigators are firm in minimizing the importance of geographical proximity, and reject the rural sociologist's long-cherished belief that the local neighborhood is a fundamental basis for group formation They stress instead the importance of such factors as kinship and marriage relationships, socioeconomic status similarities, kind of social participation habits, and the exchange of work, tools, and farm equipment

The effect of previous group membership was studied by Loomis and Davidson (1939) in another resettlement community, consisting of a group of ranchers and a group of farmers, who had been moved from a dustbowl area to a place where a Spanish-American community already existed. All three groups in the resettlement community felt some antagonism for one another at the time of resettlement. After two years Loomis and Davidson found that the pattern of family visiting corresponded fairly closely to the background differences in the community That is, ranchers predominantly visited ranchers, and farmers visited farmers, while the indigenous Spanish-Americans tended to visit one another, too. Furthermore, visiting outside one's "own group" tended to follow the migrant-indigenous cleavage, with ranchers secondarily visiting farmers (and vice versa) but neither group calling on the Spanish-Americans more than occasionally.

Further instances are not wanting. Hunt and Solomon (1942) found that among 5- to 8-year-old boys in a summer camp, the fact of having attended camp the previous year was an important determinant of choice. Goodnow and Tagiuri (1952), using "relational analysis" technique, discovered a significant degree of religious ethnocentrism among the population of a boys' boarding school, and also found that members of all the three religious groups in the school were able to estimate very closely the proportion of choices they would receive from within their own group.

The role of religious group membership in determining sentiment (choice) has also been examined by Festinger (1947), who conducted

an experiment ostensibly designed to study how college students in clubs vote The small experimental groups consisted of three Catholic and three Jewish subjects and four "paid participants," two of whom identified themselves as Catholic and two as Jewish During the first half of the experiment the religious identity of any of the participants was not specifically known to any of the others Votes on two issues were taken. Then the religious affiliation of all participants was made known to all others and two more issues were discussed and voted upon Festinger found that Catholics showed a significant tendency to vote for other Catholics following identification, but this tendency, although present, was not significant in the case of the Jews In postexperimental interviews both Jewish and Catholic participants indicated that they liked members of their own religious group better than members of the other group These findings lend considerable weight to the hypothesis that religious group membership can be an important factor in group formation under certain conditions One might expect its importance to be maximized when the activity of the group was somehow connected with a "religious" issue, but Festinger, who compared voting on both "religious" and "nonreligious" issues, found no differences.

A further complexity in Festinger's results is introduced by the findings obtained in a large experimental group where the same procedure was followed except that the voters did not vote for each other but for a panel of candidates. Furthermore, the religious identity of the candidates was known but not that of the voters Under these conditions the previously obtained effects were reversed Catholics showed a nonsignificant tendency to vote for other Catholics, but Jews voted significantly more often for other Jews following public identification of the religion of the candidates. Festinger interprets these findings to mean that both Jewish and Catholic subjects are equally identified with and equally conscious of their religious membership, but that Jews are more "personally insecure about being socially accepted or rejected in mixed religious groups than are the Catholics" (1947, p. 177). This interpretation suggests certain developments of our hypothesis system that are importantly related to phenomena of group interaction and, especially, acculturation.

Let us begin by restating our general formulation that, to the degree that an individual's activity lives up to the norms of the group, he will be the recipient of positive sentiments. Such an expression is an adequate generalization of the finding that the "identified" Catholics and the "unidentified" Jews tended to vote for their own group members Let us now consider the case Festinger proposes that Jews are personally insecure. Insofar as this is a group or social phenomenon, let us restate it this way members of a particular group may regard their own (in-group) standards as inappropriate norms in a particular situation. That is, they may regard the norms of another or a larger group as higher valued. If this is the case, to the extent that they can be identified as members of a particular group whose norms do not have high standing in the eyes of others, they will tend to abandon these norms and to adopt the higher valued norms of the group that has greater prestige. This formula, admittedly speculative, does help us to account for Festinger's findings, but introduces a new consideration into our own scheme — the matter of differential valuation of norms that stem, initially, from groups other than that in which the individual is a member at the moment.

There is striking evidence of the importance of ethnic and racial homogeneity as determinants of informal clique formation in industry. Hughes (1946) described the situation in one room of a plant where the members of three-man teams, who worked closely together in making a product, were nearly all Poles (as well as often being kin and neighbors) These teams were able to control the choice of new employees to be added to teams. When management attempted to introduce individual Negroes into these teams, the Polish workers effectively forced them to quit by "a not very subtle, but very effective torture" (p. 515). However, a three-man team of Negroes was relatively successful in staying on the job, even though evidently not fully accepted by the white workers. In another part of the same plant Negro women were partially accepted by the predominant white female workers. Here the job permitted each woman to work independently on a machine, and, Hughes noted, there was "good will and friendliness on the job (between the two races). But this friendliness does not extend beyond the work situation" (p 517). The fact that Negro workers did not conform to the group norm about production is interpreted by Hughes not as a cause of, but as evidence of, their nonmembership in informal cliques.

Age, sex, and other physical characteristics that have consequences in the social behavior of members can also be treated as environmental influences on the group. they are "outside" determinants of its organization. Since the

effects of such characteristics have been treated at length in Chapter 11, we shall omit them from consideration here

The mature personality is in part a social product, the product of the individual's experience in groups If he joins some new group, the idiosyncracies of behavior he brings to it will be one of the environmental determinants of its organization, although in time group life may well have an effect on his personality Many investigators of social organization do not concern themselves with the individual personalities of members For example, as long as *someone* has the personality characteristics to be a leader, the investigator cares not why a *particular* person had these characteristics. This is true especially of statistical studies of social structure, but the structure of a single, concrete group can seldom be understood without reference to individual personalities. In the Bank Wiring Observation Room (Roethlisberger and Dickson, 1939), cliques grew up around two out of the three soldering units into which the group was divided. The reason that none grew up around the third seems to have been that its central member was a particularly antisocial person, unwilling to participate in the activities of the others and contemptuous of their behavior and standards If the investigators had known something about this man's experience in other groups, they might have been able to predict how he was going to behave in this particular group But in the analysis of the social organization of the group itself, his personality had to be accepted simply as a fact, an "environmental" determinant of social organization as much as was the physical layout of the room itself, a determinant in that it affected the initial probabilities of interaction and sentiment between the members of the group.

We cannot possibly consider all the different environmental variables here, and in any event we do not handle them as we do the other, systemic variables. We do not try to formulate in hypotheses their mutual relations to one another We consider them simply as providing *ad hoc* "initial" or "boundary" values for the variables that are specific members of our system.

Group Effectiveness and Individual Satisfaction

In the process of moving from the simple to the more complex, we have so far considered groups as passive under the influence of the environment, which fixes the initial values of the variables of social structure. Many groups, of course, are not passive, but must take successful action on the environment if they are to survive or, since the survival of groups is often hard to define, the *degree* of their success has an important influence on their internal structure. And success, in turn, is closely related to individual satisfaction with group membership. For, so far as a group is successful in attaining its goals, material and ideal, and so far as group goals are coupled to individual goals, the group lays up for itself a fund for distribution in the form of rewards to individual members. Without these rewards the members will not be motivated to take part in the group's activities. Barnard (1938) said that any human organization had to solve two problems, the problems of effectiveness and efficiency. *Effectiveness* refers to the degree to which a group achieves its *group* purposes, and *efficiency* refers to the degree to which the group provides satisfactions to *individual* members. This kind of analysis applies to small groups just as much as it does to larger enterprises. We shall turn first to the evidence on the determinants of effectiveness, but we shall find this difficult to separate from questions of individual satisfaction and motivation.

Effectiveness and technical organization. One possible determinant of effectiveness is the scheme of technical organization developed by the group itself or imposed on it by outside authorities, including experimental investigators. This determinant includes such things as the channels of communication among members and the assignment to members of specialized activities — usually called the division of labor

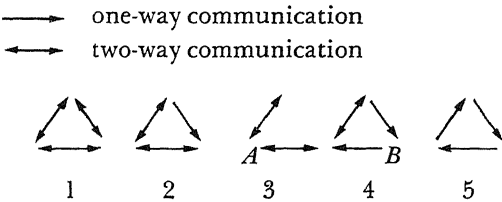
Several studies attest to the importance of this determinant One of the most important of these was done by Leavitt under the stimulus of Bavelas (Leavitt, 1951). In five-man groups each member was given a series of symbols, the composition of the series being unknown to the other members. The problem of the group was to determine, by written communications between the members, what symbol they had in common. The problem was solved when every member indicated he knew the symbol The experimental variable was differences in the communication (interaction) channels available for use by the members. By blocking off mechanically certain possible communication channels and leaving others open, the experimenters allowed the members of a group to be linked together by one of four channel patterns the circle, chain, Y, and wheel. The circle groups

tended to use the largest number of messages in solving the problem, followed by the others in the order above. The chain seemed to be the slowest in solving the problem, followed by the circle, with the Y and the wheel about equal in the fastest position The circle made the most errors, followed by the chain, wheel, and Y. In short, the circle or chain was *less effective* in solving the group problem than the wheel or Y.

Entirely different were the results of a questionnaire on individual enjoyment of the job. The communication patterns obviously differed in centrality, that is, the degree to which the channels were focused on a single communication center. The persons in the most central positions tended to enjoy their jobs more than did those in peripheral positions. But the members of the circle group, each of whom was equally central and equally peripheral, liked their jobs better than did any of the persons in peripheral positions in the other groups. In short, one form of organization, so far as channels of communication are concerned, may be a good deal more effective than another but provide less satisfaction to those of its members who are not in central positions.

A particularly interesting aspect of Leavitt's (1951) research is the finding that although more errors were made in the circle pattern than in any other, a greater proportion of them were corrected than in any other pattern, and also that the proportion of unanimous, five-man errors was lower for the circle than for the chain. This result suggests that when there is a "wide open" communication pattern, there is somewhat less chance for a group to fall into gross error (and much better chance to correct it) than when communication is centralized.

Heise and Miller (1951) have performed an experiment similar to that of Leavitt using three-man groups and five possible communication networks as follows:

⟶ one-way communication
⟷ two-way communication

The groups were set three different problems: (1) completing a list of words, each subject having part of the list, (2) completing a sentence, each subject having part of the words, and (3) making the largest possible number of anagrams out of a given word. Network (1) was fastest in time in solving of problem (1), with network (3) tending to be second. Network (3) was fastest in time on problem (2), and in problem (3) there was no great difference between networks. But, as in Leavitt's experiment, the subjects preferred the central position (*A*) of network 3, and were most dissatisfied with isolated positions (e.g., position *B* in network 4), where they reported feeling "left out and unsure of themselves" (p. 331).

We turn now to studies in which the variables of technical organization, while clearly important, were not precisely defined and controlled, but were manipulated in some such terms as the degree of permissiveness of discussion. Maier and Solem (1952) compared the use of minority opinions in groups under two conditions of organization. These investigators presented a simple arithmetic problem to 67 groups of 5-6 college students, allowed one minute for the thinking and writing down of a "before-discussion" answer, eight minutes for discussion, and then the recording of an "after" answer. They found that the percentage of individuals changing from a wrong to a correct answer was considerable in both groups, but significantly greater in those where an elected leader had ben instructed to conduct the discussion "permissively" but not to express his own views than in those where an elected observer merely sat by and took no part in the discussion. Furthermore, when a small minority (one out of five or six) had the correct answer before discussion it was much more likely that he could convince the others of his correctness in the "leader" groups than in the "observer" groups. In one "leader" group, where no one was correct in the beginning, four members came out with the right answer, but in two "observer," groups where the same degree of error prevailed at the start, no one got the right solution. When there was a small majority, or a tie, almost twice as many people in the "leader" groups changed to the correct answer as did subjects in the "observer" groups. A curious effect was obtained when a small minority (one or two) were wrong before discussion. Here the influence of permissive leadership acted to protect the minority from social influence, too, for while all of the incorrect minority members in the "observer" groups changed to correct answers, only one-third of them in the "leader" groups changed to correct.

Thus it appears that while free communication *per se* is of importance in correcting error (as it seems to be in the circle pattern in Leavitt's research), the role played by the group leader can be even more important. If he plays an absolutely minimal role (that of observer)

but free discussion is permitted, group effectiveness is likely to be enhanced, although a certain proportion of correct solutions or good ideas will be lost, apparently purely through the operation of social pressure or majority opinion If the leader is placed in a position where communication among members is restricted and he holds the key position in decision, a certain number of errors will slip by the contrary opinions of others. A permissive leader, instructed to entertain all expressions of opinion and to "encourage the participation of all," is apt to maximize the chances of correct solution (under the conditions of these experiments) by protecting the minority opinion-holders from social censure. But he risks being overprotective, so that in a small proportion of cases a determinedly incorrect minority can withstand social influence.

A study like this clearly taps, in practice, factors of a complexity beyond those considered by Bavelas *et al.* So do the famous Lewin, Lippitt, and White (1939) experiments on the relation between "authoritarian," "democratic," and "laissez-faire" types of adult leadership, on the one hand, and the behavior of groups of 11-year-old school children, on the other. We shall not describe these experiments in detail, but we do want to highlight one of the findings. The "authoritarian" leader directed the activities of the members without either consulting their wishes or informing them of his future plans, and he participated little in the actual work of the group itself. The children showed a higher level of "critical discontent" in the authoritarian situation and a need to work off tension after they had left it, but the authoritarian-led groups spent a great deal more time than the others did in giving attention to the group task. If for any reason one wanted school children to work hard on a planned project — and one were willing to accept a rise in tension and dissatisfaction — an "authoritarian" leader might be a very useful leader indeed.

There is a growing body of experimental studies of different styles of classroom teaching (primarily styles of teaching elementary psychology, to be sure) that bear a cousinly relationship to the Lewin, Lippitt, and White study. For the most part, such studies contrast the effects of "nondirective" or "student-centered" teaching in small groups with what is often termed "traditional" or "directive" methods. The latter ordinarily differ from the former in that the instructor prescribes the reading, topics of discussion, and examinations, may use a question-and-answer drill, or may lecture to the members of the "discussion section" In the nondirective style, as was the case in M J. Asch's (1951) experiment, the instructor limited his control to an initial statement of the requirements for the course (in general psychology) and the limitations on what students might do. He left free the topics of discussion and the procedure to be used, and deliberately refrained from expressing his own opinion about what was discussed. In his control groups, the same instructor spent the class period in lecture demonstration and in instructor-directed drill. To a less stringent degree, but in the same manner as did Lewin, Lippitt, and White, Asch conducted his experimental group on a "democratic" basis and his control groups on an "autocratic" one His results, liberally interpreted, parallel those of Lewin, Lippitt, and White, for Asch found that the control ("directive") groups made significantly higher grades than the experimental group on an objective final examination. (Both groups had been matched prior to the experiment on grade-point average and scholastic aptitude scores) The members of the experimental group, however, were significantly more satisfied with their course than the control groups were, measured by ratings made at the end of the semester If we equate objective examination scores with "effectiveness," we see again that satisfaction and effectiveness can be negatively related

Such results as Asch's have not been obtained consistently, however. Faw (1949) reported the results of an experiment that appears to compare virtually the same teaching techniques as those used by Asch. Faw added one variation in addition to a "student-centered" group and an "instructor-centered" one, he had one group in which the two techniques were alternated He found that, in both the student-centered group and the one receiving both treatments alternately, most students preferred the student-centered technique. Their preference was more pronounced in the group treated consistently, and many members of both groups had some reservations about their preference. By and large, these reservations seem to have been connected with doubt about the intellectual adequacy of their discussion, for about two-thirds of the student-centered group felt that they had not received as much information and knowledge as the instructor-centered group had, although they had gotten "greater social and emotional value" (Faw, 1949, p. 108) from the nondirective approach Nevertheless, the student-centered group made significantly higher grades on three objective examinations during the course, even though higher scores would

have been predicted for the instructor-centered group on the basis of students' grade-point average.

The results obtained by Asch and by Faw are perplexing and leave us doubtful of the effectiveness of "student-centered" or "nondirective" teaching methods, although the two studies agree in urging that greater member satisfaction results from such treatment

A third study, by Wispe (1951), of the same genre does little to relieve our perplexity, for he found that neither the student-centered nor the "subject-matter centered" groups did distinctively better on the final objective examination in the elementary psychology course, although he noted that "the directive sections were more beneficial to the poorer students" (p. 184). Wispe also found that personality characteristics of the students who preferred the student-centered technique differed in certain respects from those of the students preferring directive teaching. He obtained, moreover, a result similar to Faw's. students preferred directively taught sections "for their presumed value in preparing for examinations, although the permissive sections were enjoyed more" (p. 184). Like Faw's students, the ones Wispe observed seemed to be worried about the intellectual adequacy of an enjoyable learning technique.

Clearly, the pattern of interaction channels available to a group has an influence on its effectiveness, as measured in a number of different ways. But a channel pattern that is relatively effective may also be relatively inefficient, to use Barnard's terms. Its use may give rather little satisfaction to many of the members. In fact, the evidence is that the more centralized the scheme becomes, the less pleasure it gives all members other than the communications center. In situations where effectiveness depends both on technical "organization" *and* on member motivation — and we suspect most groups are of this sort — a highly centralized pattern might not give the greatest over-all effectiveness. It is also clear that different patterns might be effective for different group tasks. The possible patterns, especially as the group gets larger, are so many, and the problems that could be given a group so varied, that it will be a long time before experimentation will give us firm, general findings in this field.

Effectiveness and satisfaction in relation to motivation. Besides technical organization as such, the organization of motives has been shown to influence effectiveness. That is, for a group to be effective, its members must be well organized and willing to work hard. But this willingness, this high motivation, itself depends on the degree to which the results of group success are paid in the form of rewards to individual members.

Fouriezos, Hutt, and Guetzkow (1950) measured the degree to which "self-oriented needs" were expressed in groups engaged in discussion, defining such needs as those that produce behavior "not necessarily directed toward a group goal or . . . a solution of a group's problems" but ". . . primarily toward the satisfaction of the need itself, regardless of the effect on attainment of the group goal" (p. 683). In observing 72 decision-making conferences in governmental and industrial organizations, they were able to rate the degree to which five kinds of self-oriented needs (Dependency, Status, Dominance, Aggression, and Catharsis) found expression during the process of discussion and decision making, and to relate such expression to various criteria of satisfaction and accomplishment. They found that a high degree of self-oriented need expression was accompanied by a low level of satisfaction with the meeting as a whole, with the decisions reached, with the procedures used to reach the decision, and with the chairman's handling of the meeting The conclusion of the authors is that the groups with the highest scores on self-oriented needs rated themselves lowest on the satisfaction measures. Members of groups high in self-oriented need expression also tended to perceive themselves as less unified and were rated as having more conflict by the observers. Measures of productivity also showed significant relationship, for high self-oriented need groups tended to complete fewer agenda items, although their meetings lasted longer.

In short, the expression of self-oriented needs may give satisfaction in itself but hardly contributes to group effectiveness, so that to the extent that effectiveness would also have paid off in rewards to individual members, the overall satisfaction with the group is lowered.

The finding that satisfaction and effectiveness *both* declined in groups where self-oriented needs held sway is particularly interesting in view of the demonstration in several other studies that group goal achievement and individual member satisfaction are often in conflict. Besides the Lewin, Lippitt, and White results on autocratic and democratic groups, there is the finding by Horsfall and Arensberg (1949) that the most productive teams in a factory were also those with the smallest amount of purely social interaction. Many industrial studies have shown that management's goal of high productivity is often blocked by "informal" group standards to restrict output and that the

"informal" organization of a work group seems to be directed toward maximizing personal satisfactions in "social" interaction. It is clear that further exploration of the relationship between group goals and individual member goals is necessary, in order to understand the apparent contradiction offered by the Fouriezos, Hutt, and Guetzkow study. For one thing, it would seem that the term "individual needs" or "individual satisfactions" is too broad. Likewise, it seems reasonable to ask of a proposed "group goal," *whose* goal is it? If the goal is imposed upon the group from without, as is the case in many industrial situations and many experiments, then it is surely necessary to inquire how much "individual" satisfaction the members derive from activity directly connected with reaching such a goal. Likewise, *certain* individual satisfactions, which Homans has called "external rewards," may be obtainable *only* through the achievement of the group goal, whether the latter is imposed from without or determined from within. In the case of such member satisfactions as these, there is obviously no opposition between member satisfaction and group effectiveness, for the group serves as a means or instrumentality for the satisfaction of individual needs. When the achievement of group goals interferes with the satisfaction of individual needs, then, of course, effectiveness and satisfaction are in competition, and as one value is maximized the other will be diminished.

It is plausible to assume that in most real-life groups there is both identity and opposition between group goals and individual goals If there were not, either individuals would not join groups, or all groups would operate at peak effectiveness as determined by the limits of human, mechanical, economic, or other nonsocial capacity. Under what conditions, we may then ask, are these group and individual goals brought into greatest harmony, and into greatest opposition? An answer to this question is suggested by the research on cooperatively organized groups.

One of the most carefully thought out studies of cooperation and competition is that of Deutsch (1949) who studied five pairs of groups (each composed of 5 students in an elementary psychology course), each pair being matched (before the experimental treatment began) in "productivity of discussion" on a human relations problem. Following the matching, one group in each pair was randomly assigned to a "competitive" treatment. The groups met for five subsequent times (three hours per session) and, on each occasion, spent fifty minutes discussing a human relations problem and making recommendations for its solution, were given a puzzle (usually mathematical) to solve, and heard a lecture on some topic in psychology. The major experimental variable was the information given to the subjects, at the beginning of each session, on how they would be graded Members of "competitive" groups were told that they would be ranked individually, from one to five, on the basis of how much each contributed to the discussion or solution, both in quantity and quality of ideas, and that session ranks would be averaged to form the final grade. Members of "cooperative" groups were told that their grade depended on the merit of their performance as a group, when compared with the other four groups in the experiment

Not all of Deutsch's results concern us here, but several are apposite. He found that the "cooperative" groups showed more productivity per unit of time, a higher quality of product and of discussions, greater mutual comprehension of communication, greater attentiveness to fellow members, greater coordination of efforts, more pressure to achieve, greater friendliness during discussions, and a more favorable evaluation of the group and its products by the members. In short, the cooperative groups were more effective and also showed a higher degree of member satisfaction, being quite the opposite of the "self-oriented need" groups studied by Fouriezos, Hutt, and Guetzkow.

It is evident from Deutsch's further analysis that members of the "cooperative" groups were motivated to work hard at the group task, felt significantly stronger obligation to each other, and a stronger desire to win the respect of other members than did the competitive group members. Furthermore, and this is important, the observer's ratings of process show a significantly greater tendency for cooperative group members to perform "group functions" (including "the maintenance, strengthening, or regulation of the group"), while competitive members were significantly higher in performing "individual functions" (which, Deutsch says, "are directed toward the satisfaction of the participant's individual needs. They have for their immediate purpose the reaching of an individual goal which is neither task nor group relevant." He goes on to name certain roles characteristic of individual function, including "aggressor," "dominator," "recognition seeker," and "self-defender.")

Here, then, we fit two pieces of evidence together. It is necessary for members to be highly motivated to work at the group task (and also at group maintenance) in order to have an

effective group and one that maximizes the satisfaction of all members. To be sure, personal satisfaction — the fulfillment of individual needs — can perhaps be heightened by permitting one member to express his personal need to dominate, aggress, or gain status, but he will be the only gainer, and total member satisfaction will be lower.

It is through a particular structure of rewards that integration is achieved between individual motives and group goals. In a cooperatively organized group, Deutsch's theory points out, no individual can move toward his own goal without also forwarding the progress of other members toward their goal, while the converse is true of competitively organized groups. In cooperation, when one swims, all swim — when one sinks he draws the rest with him. This is by way of saying, in a different form, that group goals and individual goals are identical — or at least, that maximum harmony has been achieved. Individual needs are not "subordinated" to the welfare of the group but, rather, the group is an instrument for the satisfaction of individual needs. In competitively organized groups, the group may or may not be such a means, or may be so in varying degree.

Let us try to summarize and generalize what we have learned about the relationship of motivation, effectiveness, and satisfaction. First, we learned that there is often both conflict and identity between individual goals and group goals. There is identity because if the group achieves its goals it will then be able to distribute external rewards to its members. There is conflict insofar as idiosyncratic motives are not satisfied entirely by these external rewards, or because their accumulation interferes with the attainment of internal rewards arising from nonproductive activity, such as "social" interaction or self-expression. Secondly, we discovered that if self-oriented needs are allowed full expression, neither productivity nor member satisfaction is achieved, because of the effects of task failure (and consequent dearth of external rewards) upon member satisfaction. Thus, it would seem that suppression of self-oriented need behavior is in some degree necessary in order for the group to achieve its external goals. Such a statement appears to hold with special force for competitively organized groups, for, as we learned from Deutsch's research, the conflict seems to be minimized in cooperatively organized groups. The third generalization we may make, then, is that when the structure of rewards is such that personal goals and group goals are congruent, both effectiveness and efficiency will be maximized.

Interdependence of effectiveness and efficiency. A conclusion emerging from more than one study of small groups has been that both effectiveness and efficiency are maximized when the members take an active part in determining group goals, choosing their own plan of work, or devising their own solutions to problems, rather than having these things imposed from without. Note that these studies have been made of groups in effective isolation from larger organizations. The problem of the degree to which groups can be allowed to do these things and still contribute both to the effectiveness of larger organizations and the satisfactions of all members thereof is a problem of quite another degree of complexity. The problem of extending the results of small-group research to larger organizations is not going to be a simple problem of multiplication. We can recognize this much without going into the problem here.

The relationship of efficiency to effectiveness has most often been studied under the rubrics of "leadership," "group atmosphere," or "democratic group organization," and has been viewed in an ethical or a pragmatic light, rather than a theoretical one. We are not primarily concerned in this chapter with social engineering, but we shall consider the relevant studies as they bear upon the relationship in question.

Earlier, in our discussion of the communication-channel research of Leavitt (1951) and Heise and Miller (1951), we implied the interdependence of satisfaction and productivity by saying that the most highly centralized communication pattern (often the fastest in solving problems) might not give the greatest over-all effectiveness when the matter of member motivation was taken into account. Our reasoning here takes the following form. It is clear from Leavitt's research that as the technical efficiency of the various communication patterns increased, member satisfaction tended to decline. Thus, although productivity and the rewards associated with high work output increased, there was a contrary change in personal satisfactions which arise not only from the distributed rewards of productivity, but also from the gratifications associated with prestige (rank), importance of job, and interaction with other members. A reasonable inference from our model of a group is that as internal rewards (satisfaction stemming from a member's rank and his interaction) decrease, external rewards (gains realized by achieving the group task) must be increased in order to keep the member in the group and at work on the task (barring, of course, the use of external constraints or punishments to accomplish these ends). It is also con-

ceivable that internal rewards may fall so low in any given type of group organization that it becomes impossible (or uneconomical) to provide adequate external rewards.

One of the major reasons for low member satisfaction in the centralized communication patterns was the individual's feeling that he was being left out of the decision-making process. His situation is that of a man who is being told what to do without being asked what he wants to do, and without being informed of what is going on.

It seems, therefore, that imposition of a plan upon members of a group from without can cause dissatisfaction among members (see also Lewin, Lippitt, and White, 1939). There are also studies demonstrating that the imposition of a plan of action can reduce effectiveness. Group decision, on the other hand, appears, in these studies, to maximize both effectiveness and efficiency. Let us turn to the empirical work that supports this general proposition.

The most impressive documentation of the proposition is found in the studies carried out by colleagues and students of Lewin. Coch and French (1948) compared the effect on productivity of three ways of changing the jobs of workers in a clothing factory. The management had observed that sewing-machine operators whose jobs were changed usually had difficulty recovering their former level of skill, often quit the plant, and felt frustrated and resentful about the change. The investigators selected four groups for transfer to new jobs One group, serving as a control, was transferred in the manner ordinarily practised at the plant: the job was modified by time study, a meeting was held to explain to the group why the job had been changed and what the new piece rate was, with the time study man answering questions. This control group proved to be comparable to most changed groups in the plant. Production dropped about 15 to 20 percent after transfer and remained there for five weeks (about the average length of time required to bring new employees up to standard), at which time the group was broken up.

A second group was changed by a "representative" method. Before any change took place, the operators attended a meeting where one of the management staff explained the necessity for reducing production costs, and asked the group for suggestions as to how to do it. The operators agreed on a general plan, and accepted management's proposals that the job should be redesigned, that "representative" operators chosen by the group should be trained in correct methods for the new job, and that the new piece rate should be determined by studying these specially trained operators. Finally, management proposed and workers agreed that all operators would be trained in the new job. The scheme was carried out with apparently good cooperation from the "representatives" and the rest of the group. Two other groups of operators were transferred by much the same method, except that *all* members of each group, not simply representatives, participated directly in designing the new job and acting as subjects for the piece-rate determination. Again cooperation of the workers with the scheme was lively and interest was high.

Both the "representative" and the "total participation" groups showed an initial drop in output but very rapid rates of recovery and, at the end of five weeks, were exceeding the production level they had shown before transfer Furthermore, the "total participation" transfers showed both a smaller immediate loss of skill after transfer and a higher final production rate than the "representative" transfers did. Lastly, the authors attempted to transfer the control group to a comparable new job (their second transfer as a group) using the total participation method, and found that they too now recovered their previous production level rapidly and continued on beyond it to a new high level of production.

Bavelas (reported in Maier, 1946) found that group decision to achieve a new production goal (which members set for themselves) among sewing-machine operators resulted in an increase from an average of about 75 units per hour to a mean of about 87 units per hour. Bavelas employed no control group, but he reports that mean productivity for all experienced workers in the same factory remained roughly constant during the observational period. Willerman (1943) found that the consumption of whole-wheat bread in dormitory dining rooms could be increased more by a group decision that set a goal than by a letter of request from a university official setting the goal at the same level.

Maier (1950) set out to study the relationship between the outcome of group decision and the skill and knowledge of the discussion leader. He chose a problem in which both effectiveness (quality of the solution chosen) and member satisfaction (acceptance of an "elegant" solution) could be measured, and compared the performance of groups solving the problem under two kinds of leaders — trained and untrained in discussion methods. In addition, the trained leaders knew the "elegant" solution, while the untrained did not, so the experiment

does not separate the importance of skill from that of knowledge. He found that the majority of groups under trained leaders arrived at the "elegant" solution (effective performance), whereas only a small proportion of groups guided by untrained leaders decided on this solution. Observers of the experimental discussion agreed that the leader had not furnished the solution to the problem, and Maier feels, therefore, that knowledge of the correct solution as such is not the crucial factor, but that the involvement of members in the decision process is His second main finding is further support of this contention. Out of 20 groups led by an untrained person ignorant of the solution, none arrived at the "elegant" solution. Furthermore, when that solution was suggested to the groups by the experimenter less than half the members of these groups accepted it. This finding is in contrast to the result that skilled leaders were able to achieve unanimity of agreement in almost all of the cases where the groups decided on the "elegant" solution. In short, the discussion process increased *efficiency,* or member satisfaction, compared with the process of imposing the solution from without. Maier concludes that "The democratic leadership technique is . . . not only a useful procedure for obtaining acceptance and cooperation, but is also effective in improving solution quality" (1950, p. 170). A side finding of some suggestive interest here is that groups under untrained leaders reached unanimity of decision far more often than they achieved the "elegant" solution. It *may* be easier to increase member satisfaction through group discussion than to heighten effectiveness.

Effectiveness, efficiency, and social structure. We now turn to evidence on the relation between productivity, satisfaction, and the subject we discussed at the beginning of this chapter — the internal social structure of a group. Moreno (1934), studying a girls' training school, found that dormitory cottages that had a low proportion of in-group choices were also low in their standard of conduct, compared with other cottages. Their members showed a lack of interest in cottage jobs, competitions with other houses, and efforts to control bad behavior on the part of other members, and tended to ask for transfers out of cottages like this.

Darley, Gross, and Martin (1951), in a study of thirteen college rooming houses, determined the relation between an individual's "satisfaction score" based on her answers to a questionnaire and the other characteristics of the rooming house in which she lived. They found that those houses contained most satisfied persons "which start with some core of membership from a previous experience, which manage to lose fewest members over time, which start with reciprocated paired choices in certain interpersonal relations, but which develop, over time, higher ratios of in-group to out-group choices in interpersonal relations of a friendship type" (p. 576).

The effect of regrouping workers in accordance with their sociometrically expressed preferences for job partners has been reported by Van Zelst (1952). He studied two large groups of carpenters and bricklayers working on house construction. The members were accustomed to being assigned to work teams by the foreman at the beginning of each day. One group served as the control, while in the other he administered a sociometric test and, after a short time, rearranged work teams in accordance with expressed preferences. The two groups that had been closely matched before the experimental period began showed marked differences at the end. Job satisfaction in the experimental group had markedly increased, labor and materials costs had dropped, and, most marked of all, labor turnover had decreased to virtually none at all. Van Zelst is careful to point out that "the building trades, with their 'buddy-work-teams,' are especially suited for a sociometric regrouping" (1952, p. 301) because of the relatively homogeneous skills required of workers on all jobs in a particular trade. With this pragmatic caution we readily agree, but we would point out that in a more fluid situation of work assignment, our equations would have predicted spontaneous groupings of the sort that Van Zelst produced sociometrically.

Marquis, Guetzkow, and Heyns (1951) have made a preliminary report on a study of "real-life" conference groups, a study designed to find some of the determinants of (1) the satisfaction of conference members with the meeting, (2) the productivity of the meeting, and (3) the amount of disagreement with decisions taken. The observers at the conferences rated them on "cohesiveness," cohesiveness including such things as personal liking between members of the group, pleasantness of the group atmosphere, and acceptance by members of the group of other members. Cohesiveness correlated significantly with member satisfaction with the meeting, both immediately afterwards and after a period of time. The groups were called productive to the extent that they completed the items on their agenda. Productivity correlated, but not highly, with member satisfaction, and failed to correlate significantly with cohesiveness. Productivity also correlated with the

urgency of the decision and the power of the group to deal with the problem. Groups marked by a carefully laid-out procedure, enforced by the leader, were apt to have more satisfied members than more informal groups but were no more productive. And the most productive groups showed the most effective communication in terms of audibility, understandability, and freedom to participate. As for agreement between group decision and personal opinion, this did not vary with productivity, but it did vary with satisfaction with the meeting after a period of time. The groups showing relatively high agreement also showed relatively good communication — the members understood one another — and also paid more attention to the process by which the group reached its decision, as distinguished from arguments about the decision itself.

The most general conclusions that we can draw from these last findings seem to us to be the following. The individual satisfactions of the members of a group seem to be positively related to the amount of friendliness within the group. Secondly, effectiveness is determined by what we have called the organization of the group, represented in these findings by its communications, procedure, and power; and high effectiveness may lead back to high satisfaction. It is possible, in a successful group, for members both to like what is done and to like each other. A group is especially likely to be both satisfied and effective when member needs and group goals correspond or are highly interdependent Such correspondence can usually be maximized when the group is self-determining in respect to what it does, provided that members of the group have the knowledge and skill needed to make such decisions Such knowledge and skill requirements must, of course, include mastery over the technical aspects of the task and understanding of the environment in which it exists. In most of the studies we have examined, such variables as these have been truncated — that is, often the task has required little or no special skill, or the group has existed independently of other groups or of any over-all organization. To this extent, our conclusions from the group-decision experiments are limited.

As a final illustration of the relationships among efficiency, effectiveness, and other variables, let us recall the findings obtained from studying the Relay Assembly Test Room girls in the Western Electric Company. By the very way they set up the experiment, the investigators produced a group with much social interaction, high interpersonal friendship, emerging leadership, and a relationship with higher authority very different from that usually encountered by girls in a factory. Under these conditions output went up, whatever experimental changes were made in rest pauses and hours of work (Whitehead, 1938, Roethlisberger and Dickson, 1939).

Effectiveness, efficiency, and social structure. Summary. Let us now go back and examine groups from a somewhat broader point of view than any we have adopted so far. The concrete characteristics of any particular group may represent the outcome of three sets of relationships. These are the relationships of effectiveness, of social structure, and of individual satisfaction (or efficiency).

The relationship of effectiveness seems to take this general form:

$$\text{Group effectiveness} = f\,(\text{Organization, Task motivation}). \qquad (1)$$

That is, the effectiveness of a group depends on the technical organization of members to do the job and on their willingness to work hard at the job. The variations in *organization,* as we are now using the word, can be divided into variations in the channels of communication (interaction) between members, and variations in the way the activities necessary to accomplish the group purpose are divided among the members For instance, an interaction pattern highly centralized in one member and a highly specialized division of labor might turn out to be particularly effective in accomplishing a given task But note that we have met with some evidence showing that high centralization tends to work against member satisfaction and, hence, against high motivation, the second term of the effectiveness relationship.

A general form for the second relationship, that of social structure, we have already suggested above:

$$S_{op} = f(\iota_{op} \cdot A_p). \qquad (2)$$

The liking of one person for another is a function of the amount of interaction with the other and the importance or "goodness" of the other's activities. We suggested earlier the inadequacies of the relationship as thus expressed, but whether this is the right form or not, a set of equations, one for the link between each member and every other, is needed to state the relations between the value of the activities of members, their originations and receipts of interaction, and their sentiments toward one another, and to state them in at least temporary independence of considerations of group effectiveness or individual motivation to work.

The general form of the third relationship, that of motivation or efficiency, is as follows:

$$\text{Individual motivation} = f\,(\text{External rewards, Internal rewards}). \quad (3)$$

That is, the willingness of the individual to work hard, here and now, depends on the rewards he has received from the achievement of group purposes (external rewards) and those he has received from sheer association with others in the group in the course of achieving group purposes (internal rewards). A good example of an external reward is pay. We may perhaps translate internal rewards into the familiar elements of interaction, sentiment, and activity by saying that a member's internal reward is proportional to his rank and his interaction with others and inversely proportional to the burden of his activity. But we do not insist on this

The relationships are simultaneous in the sense that changes in the values of the variables in one of them will produce changes in the values of the variables in the others (In the true equations that will, in time, take the place of our "relationships," any given variable will actually be the *same* in more than one of the equations.) Let us try to show what we mean, verbally if not mathematically, using an example.

Suppose the head of a group tried to change the technical organization of the group by requiring a high concentration of interaction from the others to him and from himself to the others, that is, to require the kind of interaction pattern that obtains, in theory, between an officer and his immediate subordinates in the army. And suppose, as a natural concomitant, that he tried to make the activities of the other members rather highly specialized, individually rather unimportant, but roughly equal in importance compared to one another. And let us say that this change would increase the effectiveness of the group, other things being equal. Alas, the "other things" cannot remain equal. For changes in technical organization [equation (1)] will change the values of the interaction and activity variables in the equations of social structure [equation (2)], which might well lower the rank of most members of the group, and thus, since rank is an internal reward in equation (3), lower their motivation to take part in the work of the group. Now note that motivation also enters in equation (1), and the lowering of motivation might well destroy the increased effectiveness that the original change in technical organization would have brought about If, on the other hand, the original increase in effectiveness was great enough and enough of it was passed along to the members in the form of external rewards [equation (3)], their motivation might remain high in spite of the decline in their internal rewards. In the absence of a developed mathematics, this kind of verbal chasing around can be done only very crudely. But there is one instance of an empirical study that indicates in rough quantitative form the relative weight of some of the variables in our relationships and points to additional ways in which the relationships may be linked

Babchuk and Goode (1951) have provided an example of the interdependence of these three relationships in their analysis of internal dissension in a small group of salesmen in the men's clothing section of a large department store. Prior to the period of dissension the external reward system of the group was a base pay plus a one percent commission on all sales Internal rewards are presumed by the authors to have been high, since employees reported satisfactory interpersonal relationships as well as feeling that their jobs carried high prestige in the store. They also had had a relatively long period of tenure with the company The authors imply that salesmen tended to cooperate with each other by not competing for customers, and by taking an equal share in certain tasks necessary for the effectiveness of the group as a whole — namely, display and stock maintenance work.

In an effort to avoid labor turnover through loss of skilled salesmen to war industry, the management of the store offered an incentive wage plan that was intended to maximize external rewards — namely, a straight six percent commission on all sales. The initiation of this plan marked the beginning of a period of "discontent, bickering, conflict, and dissatisfaction" although *"production continued to increase"* (italics are authors'). Babchuk and Goode point out that this increase may have been due "to purely external demand forces." At any rate, neither effectiveness nor external rewards declined. But salesmen began avoiding display and stock work, and began to employ practices ("sales grabbing" and "tieing up trade") that were viewed as serious departures from the previous norms of the group and produced much interpersonal conflict and hostility. In our terms, an increase in external rewards had indeed produced a heightening of individual motivation to work hard, but had also brought along with it a change in the activities of members (sales grabbing and tieing up trade), to-

gether with some alteration in technical organization (distribution of stock and display work) The alteration in organization was evidently not sufficient to reduce organizational effectiveness given the heightened motivation (although we may speculate that in a period of rising consumption sales (effectiveness) might have increased even more than they did, had not the organization been somewhat disrupted). But there was a change in the activities of some members of the sales force and, given relatively constant interaction (which we assume since we are told nothing to the contrary by Babchuk and Goode), there were changes in sentiment toward those members who practised sales grabbing and tieing up trade. The changes in sentiment, manifested as "bickering and conflict," seem to have reduced the internal rewards for members, for there was also "discontent . . . and dissatisfaction."

Babchuk and Goode also trace the recovery of the group from this phase of discontent, implying that a social invention which two salesmen made stemmed from the lowered value of internal rewards. The invention was one of technical organization that resulted in an equalization of external rewards (take-home pay) It amounted to an agreement to share the stock and display work equally, which agreement necessitated equalizing sales volume This social innovation in group organization brought about changes in individual activities (sales malpractices were dropped) toward greater conformity to group norms. Activity changes brought sentiment changes, which meant the end of the period of discord and the restoration of an equalitarian and harmonious social structure

A rough idea of the relative weight of external and internal rewards is apparent in Babchuk and Goode's statement that the new plan operated *"without visibly affecting the already high production"* (their italics). It seems plausible that external rewards did decrease, at least for some, and probably increased for other salesmen. But the fact that those members who lost pay under the new scheme were yet willing to cooperate in it speaks for the relatively great importance of internal rewards in the form of member satisfactions arising from friendly interaction. The same conclusion has already been implied in the Bank Wiring Room study but is, in Babchuk and Goode's research, confirmed by a dynamic example.

Let us attempt to trace the cycle of social change in the clothing sales department as our equations would describe it The cycle begins with a change in the external reward system, which produced a change in task motivation and also a differentiation of rank. The rank differentiation led to a change in organization, both in respect to interaction and activities, since attention to stock and display work was lessened Simultaneously, the value of internal rewards was lowered The decrease in internal rewards we take to be the crucial factor in stimulating the social invention, the decision to equalize external rewards through pooling sales. The lowered effectiveness of the group arising from neglect of stock work may also have contributed to the decision, for the agreement to pool was, in a sense, necessitated by the prior decision to share the stock work. The stabilization of external rewards led to equalization of rank which had a back effect on the motivational variables in the form of an increase in internal rewards. At this point we should like to have further data on practices the group may have instituted to maintain the level of task motivation necessary to keep sales level (effectiveness) high Perhaps the change in internal rewards was sufficient, as we have already hazarded, perhaps too, the change in organization was sufficient to maintain effectiveness But we are inclined to speculate that the members of the sales force also invented devices (perhaps connected with internal rewards, through techniques like shaming or criticism of insufficiently motivated members) to keep motivation high in the face of what was for some, at least, a lowering of external rewards At any rate, the cumulative effect of the change in internal rewards and in organization (distribution of activities among members) was an increase in effectiveness taken as a whole, and an increase in satisfaction

The "system of field relationships" we suggest is undeniably crude and serves simply to indicate the kind of problems that any group must solve. We want merely to stress here the complex interdependence of the variables in our system. The heuristic value of a model like this is considerable even when the terms of the system are quite crude; considerable refinement of observation and measurement, as well as of conceptualization, will be necessary before we can venture far into prediction of events in small groups. Some things are now known about social change, however, and to these we now turn.

Social Change over Time

Thus far, time has been only an implicit variable in our system. Except in a few examples, we have treated a group as if it existed at only one moment of time or as if it maintained its structure more or less unchanged over an indefinite period of time. This plan is in accordance with the actual practice of many investigators and the history of many sciences, in which the study of statics has preceded that of dynamics We turn now to studies in which social change over a period of time cannot be neglected.

We shall first consider social *control,* the process through which incipient and unwanted change is prevented and group equilibrium maintained, or through which departures in a member's behavior from the norms of a group are halted or reversed. Under this heading we shall also consider, as far as is incumbent upon us, the process of *leadership,* since the leader is the chief agent of control. We shall then consider group *development,* the process by which a newly formed group does develop a stable structure. Next we shall consider group *process* — the sequences of behavior that occur while the group is solving a problem and reaching a decision — and group *change,* in which structure does not return to an old equilibrium position but moves to a new one. Finally, we shall look at some of the studies in which a group functions as a medium for producing changed behavior among its members — changes that are often of an enduring sort.

Social control Homans (1950) has pointed out that social control comes into play when a member's activities depart or deviate from their *existing level* of conformity to the norms of the group. It is not sheer deviation that counts, for different degrees of deviation are wholly characteristic of stable groups and are, in fact, one basis for the ranking of members. What is important is the increment of deviation.

Following Barnard (1938), Homans makes three assumptions. First, whether or not social control is effective, i.e., whether the group's influence reverses the deviance of a member, depends on that member's personal decision to accept or reject the attempt to influence him. Second, the member will decide "right," i.e., to conform to the influence exerted, if his deviance would lead him to a state of lesser personal satisfaction than he would enjoy if he conformed. Control is finally determined by equation (3) above. And, third, whether his deviance and the group's reaction to it would in fact lead to lesser personal satisfaction depends on a number of factors, not all within the range of easy observation· the member's personality structure, the social structure of the group in question, the relations of the group to the environment, and the deviant's opportunities to achieve satisfactions in other groups. An understanding of social control depends, then, on an understanding of the determinants of individual satisfaction and the relation of these satisfactions to social structure It is an individual member's decision whether he decides "right," but, where control is effective, the group in effect conspires to create the conditions that make it natural for him to decide "right"

Homans' (1950) reanalysis of Hatch's (1948) study of a small New England rural community exemplifies the economic nature of his theory of social control. In Hilltown, during the last fifty years, social control has weakened in the sense that behavior once defined as immoral in political and social affairs has increased in frequency. Homans assumes this increase means that the net satisfactions gained by immorality are greater for many townspeople than they used to be, for he feels that people do not deviate unless they gain something from it. The major part of his analysis is devoted to showing that Hilltown has not maintained an established social ranking of its members and to examining the causes and consequences of this failure An individual's personal rank (status) is much less clearly recognized than it was fifty years ago, and this in turn is related to a decline in the number of activities in which Hilltowners cooperate with one another and to an accompanying decline in the clarity of social norms. In the old days, a person's departure from his existing level of conformity to group norms was followed by a decline in his social rank, so far as a decline in his social rank was hurtful to him, he was led to avoid deviant behavior, and social control was effective. But as the ranking system itself disintegrated, rank came to mean less in personal satisfaction, and the deviate had less to lose by his behavior.

This brief sketch of Homans' analysis is enough to show that he has two kinds of propositions. One kind relates the establishment of a ranking to frequent interaction of persons in shared activities. This is a statement about social structure and falls within the class of which relationship (2) above is a member. From this statement it follows that a decline in interaction among the members of a group

will be accompanied by a decline in the ranking system The second kind of proposition relates a decline in a ranking system to personal satisfactions This is a statement about motivation and falls within the class of which relationship (3) is a member From this statement it follows that a decline in a ranking system will lead to a decline in the satisfactions available to members, since rank is a reward. And since control is a function of the motivations of members of a group, any decline in the rewards and punishments available to a group will weaken control.

The most important experimental studies in the field of social control are those made by Festinger, Schachter, Back, Kelley, Thibaut, and others connected originally with the Research Center for Group Dynamics. These studies are most conveniently brought together in Festinger *et al.* (1950). They are studies in social control so far as they are concerned with the efforts that group members make to influence deviates to agree with the rest of the group. We have already mentioned one finding of this series of studies, namely: that interaction increases between two persons to the degree that their expressed opinions differ, and that therefore interaction (communication) in the group in general will rise to the degree that disagreement is widespread. This finding is encompassed in our earlier statement (1) of the relationship between sentiment, interaction, and activity. In this particular case it takes the form. interaction with another will increase as his activities depart from your norm, sentiment held constant So far it makes no difference whether you think the other fellow is the deviate or he thinks you are one, but as soon as any measure of consensus grows up among most of the members of the group, they will begin to leave one another alone and concentrate on the person still deviating. This is, in fact, what Schachter (in Festinger *et al.*, 1950) found and it jibes with common sense: the first step in social control is an increase in communication to people in an effort to get them to change their behavior.

But, as we have already noted, sentiment cannot remain constant while activities are declining in "goodness." Schachter shows that interaction toward the deviate increases only so long as members see a chance of changing his behavior. The time comes when interaction toward the deviate starts to fall off and, at the end of the hour, the deviate is the most underchosen person on a sociometric test. Festinger *et al.* state this finding as follows: "The force to communicate about 'item *x*' to a particular person will decrease to the extent that he is perceived as not a member of the group or the extent that he is not wanted as a member of the group" (p. 8) The parallel statement in our terms is the more a member deviates in his activity from the norms of the group, the lower, in time, will be his rank in the group and the less the interaction of others with him. Contempt and ostracism have always been the weapons a group uses against deviates.

A second finding of great importance in Schachter's study is that the rate of communication to the deviate rises more rapidly, and the point at which interaction begins to fall off comes earlier, as the "cohesiveness" of a group increases. Festinger *et al.* (1950) define "cohesiveness" as "the resultant of all the forces acting on the members to remain in the group" (p. 7), and a close examination of the way in which this definition is employed operationally leads us to believe that "cohesiveness" is much the same as what we think of as the motivation of members to take part in the group and to work at the group task. Festinger *et al.* state that there are at least two principal reasons why a man wants to belong to a group: because the cooperative action of the group upon the environment can get him results he desires (the *external* rewards) or because he values association with the other members for its own sake (the *internal* rewards). And if a member does not value rank in the group, interaction with others in the group, and a share in the achievements of the group, or if he can get these things out of other groups, then he will not feel their loss when the other members try to exert influence on him by taking them away. The less he has to lose by deviation, the less his behavior will be subject to social control. Conversely, the more highly motivated he is to take part in the group, the greater the influence the group can exert upon him Festinger *et al* did, in fact, show that greater change in opinion in the direction of consensus was achieved in highly cohesive groups than in low cohesive ones. They also showed that deviant members of a housing project were more apt to have social contacts outside the project than conformers.

In this connection, we can also cite the finding by Moreno (1934) in the first study of the New York State Training School for Girls He observed that cottages low in the percentage of choices made within the cottage were also marked by a high degree of deviant behavior and low interest in trying to control this behavior. In Festinger's terms, the lower the cohesiveness, the greater the deviancy and the weaker the control.

In their study of the students' housing project, Festinger, Schachter, and Back (1950) showed that the greater the cohesiveness (measured by in-group choice) of a "court" within the project, the smaller was the number of members deviating from the norms of the court. They cite this finding as an example of the relation between cohesiveness and group influence, that is, as a proposition in social control. But it can just as well be regarded as a proposition of social structure. Indeed, it follows directly from the proposition we formulated much earlier in this chapter: a member chooses (likes) another according to the degree to which his activities conform to the norms of the group. If many conform, many will be chosen (that is, in Festinger's terms, high cohesiveness will exist). It further follows that in a highly cohesive group, a member's departure from the norms will result in his loss of a relatively large number of choices (likes) once directed to him. If he has a lot to lose, he will presumably be that much more motivated to reverse his deviancy and conform. Thus a proposition stated in terms of social structure seems to be the equivalent of a proposition stated in terms of social control. Control and structure are two sides of the same coin: the processes of control maintain structure; structure provides the ammunition for control.

Leadership. When we speak of the leader of a group, most of us mean the person who really has, or at least is supposed to have, most influence in controlling the behavior of the group, and for this reason the study of leadership is closely related to social control. Another chapter will go into leadership research in detail; we shall only show here the place of "leadership" in our scheme of analysis.

With few exceptions, leaders are not apart from and outside of their groups. They are members too, and the leader's behavior, just as much as other members', will illustrate the laws of social structure and social control. If, for instance, it is generally true that the closer a member comes to realizing the norms of the group, the more interactions he will receive from and give to other members of the group, then one can call the member who comes *closest* and interacts *most* the leader, but no *new* proposition about social organization is required to account for his behavior. Why he is the member who is able to do both these things is a problem of personality psychology in which, as social psychologists, we are not immediately interested. If someone, anyone, does come closest to realizing the norms, then certain other consequences will tend to follow, but the nature of these consequences is already summed up in the propositions of social structure. In studying leaders we are simply studying people whose behavior takes specially high values in certain variables whose relations to one another we have already tried to state.

We also believe it is a mistake to think of some one person as *the* leader of a group and the rest as followers. We should think rather of different degrees of leadership.

It follows also from our general propositions that the member who receives most interaction from, and gives most to, other members of the group will tend, in many circumstances, to be the member most liked or respected. So far as this liking or respect is valued by the leader, his behavior is more thoroughly controlled than that of other members; he will have more to lose by deviance. But he also does more to control others. We suspect that when another member starts to deviate, and group interaction towards him goes up, the leader's interaction will go up more than anyone else's. That is, he will do most to signal to the deviate that he has done wrong and ought to backtrack. In this sense, the leader gives more orders than other people, although they are not always thought of as orders.

But to have orders obeyed it is not enough simply to give them. Whether the deviate actually does correct his behavior and control becomes effective depends, as we have said, on whether he has more to gain than lose by doing so, and this in turn will depend on his relations not only with the leader but with other members of the group. A leader's power or authority is determined by the probability that his orders are indeed obeyed, and this will depend ultimately on the interests of the persons ordered, as they see these interests. In any event, the leader's behavior differs in degree but not in kind from that of other members of the group.

We shall cite here only one set of studies, one that fits in well with our own ideas of how to look at leadership. This is the research of Lippitt, Polansky, Redl, and Rosen (1952) on social influence or power in selected children's camps. The investigators observed the children in interaction with one another, and counted, among other things, the number of times a member's behavior changed to resemble that of another without the other's asking him to do so (contagion), and the number of times a member changed his behavior in conformity with another's expressed wishes (direct influence). The investigators also asked each child to rate each of the others on their exerted influence, on how much he liked to be with them,

and on their excellence in sports, fighting ability, campcraft, etc.

The findings were as follows. Members rated high by other members of the group on influence tended both to induce more behavioral contagion than did members rated low and to be more often successful in attempts at direct influence. Moreover, at least toward the end of the camp sessions, a *particular* member was apt to accept contagion from and take orders from another member he *himself* rated high on influence. The members rated high in influence and observed to be high in actual influence were more highly chosen in the sociometric test than other group members and rated better in fighting ability and skill at campcraft. The observers also found that they were higher in social relations activity (social interaction) than the others.

Other studies have reached the same conclusions about the relationship between rated leadership and the initiation of interaction, especially Bales (1953) and Horsfall and Arensberg (1949) Hunt and Solomon (1942) observed that the camper who instigated most of the activities in a 5-8-year-old group received the highest number of "indirect" or "contributing" choices from others in the camp. The main point is that the greater the influence a member has on other members, the higher his rank (sociometric status) is apt to be, the closer his behavior comes to realizing the norms and values of the group, and the more frequent is his interaction with others You can call the person who scores highest on all the variables the leader if you will, but the relations between the variables are for us the really important observations.

Group development. The quantitative study of the persistence of social structure may well have begun with studies of the reliability of sociometric tests given at successive intervals of time Since this topic is fully covered in Chapter 11, we shall content ourselves here with saying merely that a number of investigators have found high (but less than perfect) correlations between successive tests (see Zeleny, 1939, Newstetter, Feldstein, and Newcomb, 1938; Williams and Leavitt, 1947; and Jennings, 1943 and 1950). There is good reason to believe that if the membership of a group and the external circumstances of its existence remain fairly constant, and if the group has been in existence for a long enough time to "settle down," the ranking of members will tend to remain the same. It is important not to ignore the last qualification, however. As we have already mentioned, Loomis and Beegle (1950) found that clique formations in a rural resettlement colony changed markedly over a period of two years Likewise, Hunt and Solomon (1942) observed that, although sociometric choices among campers in successive weeks of an eight-week period showed correlations ranging from 70 to .95, the correlation between first-week and last-week choices was only .20 to .30 The greatest changes took place during the first four weeks, however, and choices became stabilized thereafter We believe it to be a general phenomenon that extensive choice changes occur in newly formed groups, but that stability of social structure is the rule later on.

Many, perhaps most, experimental studies of small groups have brought these groups together for only very short periods of time, usually an hour or two. All the more important, then, are those studies that allow us to follow a group from its formation to the time when it has developed a fairly stable structure. One such study is the Relay Assembly Test Room in the Western Electric researches (Mayo, 1933; Whitehead, 1938; Roethlisberger and Dickson, 1939). Five girls working on the assembly of small parts for telephone equipment were placed in a room by themselves Two pairs of the girls had known each other before entering the room, but, over the five years of the experiments, other friendships sprang up. The group developed certain customs and routines of its own, and one of the girls emerged as its leader. One special finding engages our attention. As time went on, high correlations between the fluctuations of the output rates of several of the girls began to appear in the data, especially between girls who were friends and sat next to each other — and this in spite of the fact that the girls were making the assemblies so fast that they could hardly have obtained this result by conscious effort. When the seating order of the girls was changed, these correlations tended to disappear for a time and then to build up again. Here we see an unusual dynamic example of how increased interaction, friendliness, and similarity of activity go together.

In a study over time of the population of an experimental grammar school, Bronfenbrenner (1944) found that the proportion of overchosen children tended to increase and the proportion of the neglected or rejected to decrease, in part because children of the latter sort tended to withdraw from school Mutual relationships also tended to increase as the classes got older In short, positive choice tended with time to become more widely distributed both in the

upper and the lower rank levels. But a person's relative rank tended to remain much the same over time, in spite of the fact that discrimination between choice on different criteria became greater: a person chosen highly on one criterion was not so likely to be chosen highly on the others. Rank differentiation on different criteria has been observed in other groups studied over time We have already discussed Lippitt's (1948) finding that a high correlation (.70) between choices on the criterion of productivity and choices for spending leisure time at the end of the first day of group meetings declined to around .55 by the third week. In short, the group in its process of development tended toward the kind of differentiation between choices on work and choices on leisure that Jennings found already in existence in her established groups

A study that followed the development of groups over a longer time than usual in this field of research is that of Josephine Klein (1952). She formed three six-person discussion groups, made up of students who had not known each other before the meetings began, observed their behavior over a series of ten one-hour meetings, and administered sociometric questionnaires after each meeting She found that members tended to establish characteristic interaction frequencies, and these frequencies tended to persist over time A member tended to interact more often with certain members of the group than with others, and these high-interaction subgroups, particularly pairs, tended to persist over time. In the sociometric tests, the members of a group tended increasingly to agree on the rank of each member, and this increasing agreement was just as characteristic of high rankings as of low ones. The tests included six questions, three of which Klein says used "psyche" criteria, such as rooming together, and three used "socio" criteria, such as working together in a discussion group. It turned out that for her three groups as a whole, rankings on one of the two kinds of criteria resembled rankings on the other. On the other hand, she found that one of her groups (group *A*) tended to show over time an increasing discrimination in choice on different criteria: a person chosen highly on one of the criteria was not necessarily chosen highly on the others. It may be significant that group *A* showed the greatest equality in the members' interactions, greater total activity per meeting, the smallest number of mutual pair choices, the greatest agreement in the ranking of members, and the greatest persistence in that agreement. We have already pointed out that the existence of an agreed-upon ranking tends to militate against much mutual pair choice. Group *A* may have been the best integrated of the three groups in the sense of having fewest vertical or horizontal divisions.

Finally, we should reiterate a conclusion we reached when discussing the influence of the environment on group structure. There we unavoidably included reference to the time variable in assessing the importance of ecological factors in the *early* development of a group. When a number of strangers are more or less arbitrarily brought together in the same objective situation, spatial proximity and similarity in "background" will initially determine rank and interaction. As time goes on, and presumably the norms of a group become better recognized, the ranking of members according to the degree to which they live up to the norms becomes more similar from member to member After the period of initial build-up, and so long as the relationship of the group to its environment remains much the same, the internal structure of the group tends to persist, both in the interaction pattern and, so far as ranking is concerned, in the sentiment pattern

Social process. The study of the events that go into making group structure involves examining interaction on a more microscopic level than we have so far employed, and focuses attention upon the distribution of unit acts in kind and among persons over time.

Prominent among recent work has been that of R. F. Bales and his associates, who have given the name "interaction process analysis" to their research. Since Bales' observational technique is fully described elsewhere (see Chapter 10 and Bales, 1950), only a brief summary of his procedure is necessary here. Bales has worked with groups of male college students varying in size from 2 to 7. Each member of a group was given a summary of a "human relations case" and the group set the tasks of diagnosing the problem and making a recommendation for action. Members were made specifically uncertain as to whether or not they had the same facts about the case, but otherwise there was no manipulation by the experimenter. Groups were leaderless and no specialized roles were assigned to members. The experimenter observed the group in discussion and scored their behavior (mostly verbal) on the interaction recorder. Each act (a remark or gesture) was uniquely scored — as originating from a particular member and being directed toward a particular other member (or toward the group as a whole); as having a place in one (and only one) of the twelve categories of

action; and as occurring at a particular point in the sequence of interaction. Thus Bales is able to provide, from his data, statements about the distribution of interaction in three ways. among members (matrix generalizations), among categories of action (profile generalizations), and through time (phase generalizations).

Distribution of interaction among categories (profile generalizations). Detailed analysis of act-to-act sequences according to their distribution among the twelve categories of action revealed certain statistical regularities that describe the pattern of discussion. For convenience, the twelve categories of interaction can be grouped into four classes. Questions (asks orientation, asks opinion, asks suggestion); Attempted Answers (gives orientation, gives opinion, gives suggestion); Positive Reactions (showing solidarity, tension release, agreement); and Negative Reactions (showing antagonism, tension, disagreement). Bales found that about one-half of all acts were Attempted Answers which moved the group toward its external goal — the solution of the problem. Such task-oriented Attempts, in turn tended to provoke Reactions — positive, negative, or questions About one-half of the observed Reactions were positive The remaining one-half were distributed in a binary fashion. half of them were negative, and the other half equally divided between Questions and further Attempted Answers. Thus, an average profile has the following percentage distribution of acts:

Type of act	*Frequency (percent)*
Attempted answers (initial acts)	50
Positive reactions	25
Negative reactions	12
Questions	6
Attempted answers (reactions)	7
	100

In other words, problem-solving discussion tends to proceed somewhat erratically, alternating between attempts by a member to contribute to the solution, and evaluative reactions by his fellows toward such attempts. In general, agreement with the Attempted Answers of a previous speaker is more probable than disagreement, but both reactions are likely to be prefatory to further Attempted Answers by the reacting speaker. Questions by one member generally lead to Answers from others. On the other hand, certain affective reactions tend to provoke their like, rather than their complement. Thus, if one member acts in the categories disagreement, antagonism, solidarity, or tension release, he is likely to receive a parallel response from the next speaker

The foregoing generalizations are, of course, probability statements, based on the analysis of 16 meetings of 5-man groups The actual course of these meetings was not so clear as the matrix of proactive and reactive tendencies suggests. Yet Bales notices some general tendencies that he describes as the movement of a system in equilibrium through time. The equilibrium movement results from the operation of two major forces — the force toward task accomplishment (instrumental-adaptive activity) and the force toward development and maintenance of a status system or internal coordination of parts (individual members), which Bales calls expressive-integrative activity. Looking at the interaction process for the group as a whole, on the most microscopic level, each Attempted Answer creates a disturbance of equilibrium that is restored through Positive Reaction or perpetuated through Questions or Negative Reactions. Seen as a process distributed among individual members, it can be said that instrumental-adaptive acts by one member tend to build up tensions in other members, who then enter the discussion and change the activity to the expressive-integrative area, thus reducing tension, and then continuing with instrumental-adaptive activity. According to Bales' theory, tensions are created and increased in nonparticipants by the task-oriented activity of one member in that the latter's suggestions, opinions, and information tend to direct or restrict the course of discussion; thus they impose the wishes of the speaker upon the others, who respond to this threat of control or direction by asserting their own opinions, disagreements, or agreements. It should be pointed out that Bales' views imply that participants in discussion are in a very general sense engaged in a competition for scarce resources, whether the resource be control of the outcome, freedom from being controlled by others, or simply time itself. The equilibrium formation, then, would be generalizable to groups whose members do share some motivation to affect the outcome of discussion or to achieve closure.

Distribution of activity through time (phase generalizations) It has often been contended that groups do, or should, go through certain phases in solving a problem. Such phases have been thought to take the general form of (1) gathering information about the problem, (2) evaluating different possible courses of action, (3) deciding tentatively on a plan of action, (4)

carrying it out, and (5) evaluating the outcome by gathering information about the operation of the plan and thus beginning the cycle anew

Bales and Strodtbeck (1950) provide empirical evidence on phase changes in the kind of activity observed during 22 sessions of discussion groups of various sizes, engaged in problem-solving tasks. The authors state explicitly the conditions under which they believe their findings to be valid. The most important condition for our present interest is that the problem be a "full-fledged" one — i e., that at the start of the discussion there is cognitive unclarity about the facts in the situation, so that the group must work to arrive at a common definition of the situation; second, there is some variability in values and interests among members, so that there exists the problem of arriving at common value judgments, third, that there are several possible solutions and at least moderate pressure for members to agree, although not necessarily an explicit demand for unanimity. In short, a full-fledged problem must provide opportunities for the group to come to grips with problems of orientation, evaluation, and control (or decision). Note that while the three elements are specified, it is not required in the conditions that the group undertake these tasks in the order specified above. Whether they do or not is the problem of phase analysis.

Bales and Strodtbeck proceeded by dividing the sequential interaction records of each session into thirds, so that one-third of the total number of acts was included in each phase. They then counted the frequency of each of five kinds of acts (orientation, evaluation, control, positive reactions, and negative reactions) in each phase and constructed an index (rate per 100 acts) for each phase.

They found that the rate of acts of orientation decreases steadily from initial to final phase, while rate of acts of control rises equally steadily. Acts of evaluation occur most frequently in the middle phase, less so in initial and final phases. Both positive and negative reactions increase in rate from initial to final phase, although the slopes of their increase diverge between middle and final phase, with positive reactions showing positive acceleration.

Once again, these findings are in accord with what has been often suspected. Groups that are operating under the specified conditions do devote most of their initial phase to collecting and clarifying facts. As information is collected it is also evaluated, and the exchange of opinions increases to its peak near the middle of the meeting. This exchange involves both agreement and disagreement, solidarity and antagonism, for the common evaluation of the situation that has been defined is evidently forged under some heat. Control, in the form of suggestions for action, also increases in the second phase, and markedly so in the third period. In this final period evaluative activity drops off, and the movement toward decision is accompanied by a faster increase of agreement and solidarity than of disagreement — a necessary result if the group is to reach an agreement on a decision. Yet the tendency for negative reactions to increase from phase to phase as the "constrictiveness" of activity increases, interestingly parallels the findings of Lippitt (1940) and Rogers (1941) that subjects or counselees react negatively to attempts of leaders and counselors to control their future action.

Not only is there phase movement within a single session of a discussion group, but there is also a distinct pattern of change in the distribution of interaction among categories over the course of several meetings Heinicke and Bales (1953) report evidence from studying 5-man and 6-man groups discussing "human relations" case problems, with each group meeting for four one-hour sessions to consider four different cases Their sample of ten groups shows certain consistent changes in the distribution of interaction between the first and last meetings. In general, the relative amount of activity in the "Attempted Answer" section (suggestion, opinion, and information giving) tends to decline. The amount of disagreement shows a curvilinear change, rising slightly from the first to the second meetings and declining thereafter. The greatest changes (both are statistically significant) are to be found in the steady increase in showing solidarity and tension release combined, and in the equally regular decrease in showing agreement.

Such findings are different from most of those we have heretofore reported in that they violate rather than correspond with common sense In effect, what the evidence says is that as a group becomes more and more accustomed to working together, less and less (though, to be sure not significantly less) of their interaction is devoted to direct work on the task, such as giving or asking suggestions, opinions, and information. More and more of their time is spent in affective reactions, both positive and negative. The group becomes more "harmonious" to be sure, and engages in more expression of solidarity (admiration, praise, enhancement of another's status) and more laughing and joking (tension release), but explicit acts of agreement decrease in frequency. This picture

is quite the opposite of the stereotype of the "experienced group" which, as the members come to know each other's capacities and prejudices, become more task-oriented and more "businesslike."

Rather, these data seem to show that a "permissive" group atmosphere develops, where disagreement is more tolerable, and where solidarity and joking replace explicit agreement with another's proposals The decrease in task-oriented Attempted Answers may indicate improvement in communication — it takes relatively less of the group's time to get across an idea and have it accepted, members' common value system is better developed, and their standards of judgment and interpretation are more fixed

Further analysis of interaction data together with certain sociometric results strongly suggest to Heinicke and Bales that there are also phase sequences (from meeting to meeting) in the development of social structure in their groups One peculiarity in the meeting-to-meeting data is striking. There is a persistent tendency for the relative frequency of disagreement, tension, and antagonism to reach their maximum values during the second session Evidently the members of the groups are fighting about something in the second session — more so than in any other. What is the nature of the conflict? Heinicke and Bales hypothesize the occurrence of a status struggle in the second session on the basis of the following findings In four of their ten groups there was a high degree of agreement among members' ranking of each other on a "leadership" criterion at the end of the *fourth* meeting. These are the High Status-Consensus groups, in the other six groups there was much less intermember agreement (Low Status-Consensus). While both the High and the Low groups manifest the same sharp increase in disagreement, tension, and antagonism during the second meeting, in the High Groups there is a decrease in conflict in the third and fourth meetings. In the Low groups, however, the conflict continues. Heinicke and Bales interpret these data to mean that all their groups had a struggle over status, but that the High groups resolved the conflict and came to agreement on status early, while the Low groups did not.

While the foregoing findings on changes in activity, interaction, and sentiment over time shed much light on social process in problem-solving groups, for the most part they exceed the grasp of our propositional system. There are, however, certain additional findings by Bales and his associates that bear more directly on our theory.

Social control and social rank We are in fact able, with the help of Bales' findings, to take up a problem we have left in abeyance since the early part of this chapter the question of why choice may be different on different criteria, or why a member may choose one person to work with and quite another to spend his leisure time with. At the end of each meeting, Bales (1953) had his subjects rank-order each other on four criteria· who contributed the best ideas for solving the problem, who did most to guide the discussion, whom do you like, and whom do you dislike? The first two criteria correspond roughly to an evaluation of performance on the instrumental and the adaptive levels of activity (the roles of "technician" and "executive" respectively), while the latter two ask for ranking on social-emotional dimensions.

The results confirm our hypothesis about the relationship between sentiment and interaction, in that members' choices on "best ideas" and "guidance" (which are highly correlated with each other) both correlate fairly highly with rank in frequency of initiation and receipt of interaction In short, the "top man," who does most of the talking and has most remarks addressed to him, is also credited by his fellows with being the most effective and influential member in accomplishing the group task. This impression is borne out by the fact that when members are asked to designate an over-all "leader" they most often choose the person whom they have also ranked first on "best ideas" and "guidance." It is also confirmed by Strodtbeck's (1951) finding that in husband-wife dyads discussing differences in opinion and trying to reconcile them, the partner who talked more also "won" a larger share of the decisions

Bales' next finding interests us even more, for it is concerned with the changes over time — a series of four meetings — in the distribution of choices. While it is fairly likely that the member most chosen as "liked" will also be most chosen for "best ideas" and "guidance" in the *first* meeting, such coincidence becomes increasingly unlikely in later meetings. Indeed, if the observations of all the meetings are put together, the top man in "guidance" and "best ideas" (who is also the most frequent initiator of interaction) turns out to be the *most disliked* man, on the average, and only a close third in the *likes* choices. The second or third man on "guidance" and "best ideas" is usually the best liked. What seems to occur is, in Bales' language, some sort of role differentiation, with one man achieving a position as task or instru-

mental-adaptive leader, while some other man becomes the target of positive affective choice.

Bales' findings seem to contradict our earlier statement that a member highly ranked on one criterion will also be highly ranked on others. But note first that the studies we cited to support our statement were often made of newly formed groups not allowed to develop over time; and note also that in established groups or those studied over a period of time, we have seen that the correlation between "working" and "leisure" choice tended to decline with time (Lippitt, 1948), and also that "leisure" choice tended to go to sociometric equals on "working" choice (Jennings, 1950). We believe these findings are essentially similar to Bales'

We feel that a developing group that has a task to accomplish exhibits the following pattern. In early meetings, the activities of some member get high evaluation by the group, and at this point the tendency towards rank equilibration is at its strongest: he gets high evaluation on more criteria than one. In accordance with our hypotheses, interaction tends to flow towards him from the others and towards the others from him. This puts him in the best strategic position to control the group in the completion of its task, and Bales shows that he is most often cited as guiding discussion and as being the leader. But effective control (authority) tends to bring a new force into play. Bales feels that each instrumental-adaptive act which brings the group nearer its goal disturbs the equilibrium of the group and creates tension Since the "top man" is the author of most such acts he is perceived by his fellows as the source of their tension and is thus disliked. But his actions also forward task accomplishment and he is valued because he brings the group to one of its goals. Homans (1950) described the same phenomenon by saying that the exercise of authority by one man over another tends to inhibit pure liking of the subordinate for the superior, although the subordinate may well feel some "respect" for the superior's abilities. In short, the fact that our earlier statements and some of Bales' findings appear contradictory does not mean that either must be rejected There is, in fact, evidence for both. What we have instead is a commonplace of science: two forces, described by different analytical hypotheses, which may well work against each other, and which may be *composed* in different ways depending on their relative strength in concrete circumstances. The contradiction is in the forces, not the findings.

Let us put the matter in a more commonsense way. In our society, the members of a group may hold at least two different kinds of norms: that a member should be a "good fellow" and also make a contribution to a common task But as soon as his contribution is so good that he becomes a "taskmaster," then he finds it increasingly difficult to be a "good fellow." Or, authority tends to interfere with rank equilibration. Or again, and now in psychological terms, attitudes towards an authority figure tend to be ambivalent.

We know that persons have unequal tolerances for such ambivalence. A good example is the workingman elected shop steward because he is a "good guy" in his group. As soon as he becomes steward, he must, in fact, exercise some authority over the group, whether it is recognized as authority or not, and this often leads to a decline in his reputation as a "good guy." Some stewards cannot stand the strain and quit. Is a man more likely to relinquish task control or to turn his back on personal popularity in a group? Let us turn back to Bales. As the "best idea" and "guidance" specialist, a member is influential and responsible for group locomotion toward its goal but is the target of considerable disagreement and rejection (both antagonism to his "restrictive" suggestions and sociometric rejection on the "disliked" criterion), as the "liked" person he would be the recipient of more positive affective output, but also would lose his influential position. It is an interesting conflict and its resolution may well depend upon personality factors, such as ability to withstand hostility and disagreement, as well as on dominance needs. Bales (1953) presented data bearing on this conflict for a series of groups in which there was one man who, at the end of the first meeting, was chosen *both* for the instrumental-adaptive role (best ideas and guidance) and for the "liked" role, but who in the second meeting dropped one or the other role. The evidence is fairly clear. In the 10 instances where a man played both "best ideas" and "liked" roles in the first meeting of the group, he never dropped the "liked" role, but dropped the "best ideas" role nine times in the second meeting. In one instance he dropped both roles (perhaps because of his failure to resolve the conflict internally and to adopt successful strategies for retaining one role or the other).

One further set of findings by Heinicke and Bales rounds out the picture of the dynamics of interaction, sentiment, and activity in certain problem-solving groups. In their High Status-Consensus groups, they found that high-ranking members had relatively high rates of

interaction initiated and received, opinion and suggestion initiated, and agreement received But while these rates are high in the first meeting, there is a gradual decline in all but total interaction received and agreement received during the subsequent sessions. In other words, in a group where the rank structure gets established early and remains stable, high-ranking members tend to become less active but no less the focus of others' activities The "top man" seems to take less responsibility for initiating the forward movement of the group task, but loses neither his position at the center of communication nor the support of the other members. These generalizations apply only to the High Status-Consensus groups. Where social structure is unstable, there are no clear-cut patterns

One final point: to the extent that the exercise of control by members tends to inhibit the "liking" of others toward them, these others are left with a fund of potential "liking" seeking an outlet. In the nature of the case, this fund will tend to be spent on sociometric equals on the "task" criteria. This, we believe, is the best explanation of Jennings' finding that we have cited so often This also Bales found his best-liked members were the second and third on the task criteria, that is, closer than the top man to the average task-rank of members of five-man groups. There may also be a tendency to choose "up" but only slightly so If, moreover, interaction and liking are related, then we should expect "social" interaction to be particularly frequent among persons who choose one another on "social-emotional" criteria. It is a fact of many real-life groups that persons closest to one another in rank on the job tend to go around together off the job. It further follows that this tendency should be most marked in groups such as military units and ships, where the exercise of authority is in some sense most severe. A ship captain at sea is socially the most isolated man in the world. Ashore, he drinks — with other captains.

Social change. In some sense, social change is the most constant aspect of group existence, and we have already referred to many social changes taking place in groups — changes in members' sentiments, in their interaction, in their activities, and in several of these things simultaneously. Social change may start in any part of the system, through changes in the external system of the group, alterations in its physical environment, technical organization, or even in its internal system, and will, of course, have back effects of a greater or lesser order on all of these. We cannot hope to cope with all the sources and consequences of social change here, but we shall explore one area that has received considerable experimental attention, and about which some interesting facts have been learned namely, changes in group norms, or, as they are sometimes called, group standards

The experiments of Bavelas (in Maier, 1946) and of Coch and French (1948) are just as much researches into changes in group standards as they are investigations of group effectiveness and member satisfaction They are examples of engineered social change. The experiments of Maier (1950) on the role of the leader in affecting the quality of a decision are also studies of changes in norms All three of these researches have in common the attempt to study a change induced in a group by means of discussion and group decision We shall also encounter, in this section, studies in which the group is not so much the object as the medium of change — where the intention is to produce changes in members' norms and activities outside the group and after it has dissolved.

Coch and French's experiment closely parallels, in design, a series of researches initiated by Kurt Lewin and his associates during the period 1941-44, when there was considerable concern in the United States over problems of food habits and their change The results of these experiments and their interpretation by Lewin deserve our close attention, since they clarify the dynamics of a particular kind of social change, namely, the changing of individual behavior in a direction that is not initially considered important or desirable by the individual concerned, but is vital to some outside agency or person Furthermore, these experiments produce one result that common sense might not have predicted. They strongly suggest that under some conditions, it is easier and more effective to change the behavior of a group of people than it is to change an isolated individual.

One such study concerned the relative effects of a lecture compared with discussion followed by group decision in changing the consumption of certain unpopular kinds of meat Lewin (1947) reported that, after the attempt to change the meat habits, only 3 percent of the lecture group members did, in fact, serve one of the kinds of meat never served before, while 32 percent of the discussion-decision groups had done so. Similar results were obtained by Klisurich (Lewin, 1947) using groups of 6 to 9 housewives in an attempt to increase the consumption of milk. The discussion and decision technique was from one and one-half to four times as effec-

tive as a lecture in producing the desired change in behavior.

A result that bears upon the factor of technical organization of the group in an unusual way is that of Klisurich (reported in Lewin, 1947) who compared the effectiveness of individual instruction and group discussion in persuading mothers of first-born children to follow hospital recommendations for feeding cod liver oil and orange juice to their infants. Klisurich found that when the recommendation was communicated through discussion groups and group decision was reached, twice as many mothers adopted approved feeding practices as when the same information was communicated in a private instructional session between the nutritionist and an individual mother. In this experiment it is evidently not simply the fact of taking an active, participatory role in instruction that produced the result, for in the dyadic as well as in the six-member group treatment, the mother discussed the problem with the nutritionist. And the result is clearly not a function of the amount of time devoted to the matter, since approximately the same time was allowed for both kinds of treatment (25 minutes). Rather, we see here the importance of social support in producing and maintaining a decision.

A parallel study is that of Preston and Heintz (1949). These investigators studied two kinds of leaders ("participatory" and "supervisory") working with small groups of students who were instructed to make group decisions on the relative merit of twelve candidates for the office of President of the United States. Prior to group formation, all of the members of a large class had individually ranked the twelve candidates and turned in their lists to the experimenters. After groups were formed, they elected leaders, who were trained as either "participatory" or "supervisory" by the experimenters. Participatory leaders were taught to conduct the discussions in their groups so that (1) each name on the list of twelve candidates received fair consideration, (2) all members of the group took part in the discussion, (2) decisions were reached by other than chance methods (such as flipping a coin), and finally, (4) the job was accomplished within half-an-hour. Supervisory leaders, on the other hand, were instructed only that they were not to give their own opinions and that they were to get the job finished in half-an-hour. (Obviously, "supervisory" leadership is a residual category and the comparison is between fairly clearly defined "democratic" style, and a miscellany of techniques, some of which might even approximate the "participatory" style.) After each group had agreed upon a single rank order for the twelve names it was handed in to the experimenters. One day later, all subjects again rank-ordered the list individually, without consulting other subjects.

Comparing the three rankings available from each subject, Preston and Heintz found that followers in "participatory" groups showed significantly greater agreement between the group ranking and the *second* individual ranking, and significantly less agreement between *first individual* ranking and *second individual* ranking than was the case among followers in "supervisory" groups. There was also somewhat less (though not significantly so) agreement between first individual ranking and group ranking among the participatory group members. Furthermore, for participatory followers group rank was more closely related to final individual rank than was first individual rank. In short, in groups led in a "participatory" fashion, group discussion is more effective in changing opinions and in producing enduring change. Members of groups led in a "supervisory" fashion seemed more resistant to group opinion. Furthermore, participatory subjects more often reported themselves satisfied with the group ranking than did supervisory subjects, and rated the whole task as being "interesting and meaningful," "efficient and productive" more often than the latter group did.

Corroborative evidence on the effectiveness of group-discussion methods in inducing changes in group standards is provided by an experiment of Levine and Butler (1952), who found that foremen's standards for rating workers could be changed more effectively in a discussion than in a lecture group (a control group showed no changes), and by a most interesting experiment by Simpson (1938) on the development of aesthetic judgment among students. Simpson administered the McAdory Art Test to 185 college women. Five days after the test 160 of the subjects were divided into groups of four members for the purpose of discussing the first half of the test. The remaining subjects constituted a control group who did not engage in discussion. Still five days later Simpson readministered the test and compared the amount of improvement shown by the experimental (i.e., discussion) groups over that achieved by the control group. The result was a significant difference in favor of the experimental group, both on the half they had discussed and on the half not discussed. It seems clear that discussion resulted in a generalized "up-grading" of group standards of judgment. Change was not confined merely to the specific content of discussion,

but rather it appears that a new standard of judgment had been formed The fact that scores were higher (indicating "better" aesthetic judgment) is not nearly so interesting to us at the moment as that they were higher on the undiscussed as well as on the discussed half of the test.

Lewin (1951) attempted a theoretical explanation of the results of all of the aforementioned group-decision experiments in terms of "quasi-stationary equilibrium" process. He defines a quasi-stationary equilibrium as "any regularity in behavior in a group" that is relatively stable over a period of time, not insisting that absolute, letter-perfect constancy over time or among members is necessary. Such an equilibrium is sustained by a force field that Lewin analyzes into two components. The first of these is the set of forces acting to maintain the level of behavior in the group at a given point. Such forces, in the case of food habits, might be relative cost of the particular food, ignorance of its nutritional properties (or erroneous beliefs about them), availability of the food, difficulties in its preparation, and so forth. Such forces as these presumably apply to all members of a given group (e g , housewives from a homogeneous cultural and economic background) with relatively equal strength. In addition to this first component, however, there is a second set of forces that acts to maintain the behavior of an individual group member at the level of equilibrium in the group, at least in the case of a certain kind of equilibrium — namely, "group standards." It is clear from Lewin's discussion on this point that "group standards" are the same as what we have termed "norms" — i e , ideas about the way people ought to behave He points out that some kinds of behavior acquire value or valence in themselves, and that when an individual tries to diverge too much from group standards ". . . he will be ridiculed, treated severely, and finally ousted from the group" (p. 226). That is, sanctions will be brought to bear on him in an attempt to bring him back into line with the norms of the group. So far, so good. This is what we have heard sociologists say since time immemorial, and we know the lesson well.

But Lewin's contribution was the insight that it was this second field of force that so often makes attempts to change behavior ineffective, especially when the attempt is made to change a single individual at a time. In effect, Lewin pointed out, such attempts often make the individual a deviant because they work on only the first component of forces — the factors that maintain the group level at a given point — without in any way trying to overcome the forces that keep the individual at the group level of equilibrium. Lewin traces the relatively high success of the group discussion and decision method of change to two major facts, the first of which is that such a method does not work against the forces that cause an individual to adhere to the group standard, but instead uses those forces to work in favor of change. In the discussion method, the problem is to change the group level. This is accomplished by processes Lewin called "unfreezing" and "moving to a new level" — meaning that it is necessary first to remove or weaken the forces that resist change in the desired direction, then to develop, through discussion, some clear idea of the new level of behavior or activity. Once this is done, the group decision in effect "freezes" the activity level at a new point, and the individual member is brought along by the very forces that caused him, in part, to resist change in the beginning, namely, the forces making him adhere to a given group standard The second major factor making group decision so effective a process of change is what Lewin spoke of as "the linking of motivation to action." The nature of this link is defined by the tendency of an individual to stick to his decision and, perhaps even more important in the case of an enduring group with relatively high interaction among members, the individual's commitment to the group.

These considerations brought Lewin to the conclusion that it would ordinarily be easier to change the behavior of individuals as a group than to change them one by one. It also brought him to the view that when it was impossible to change the standard of the whole group, certain special measures had to be taken. Thus, for example, when an individual or small group was to be changed away from a standard of a larger group (e g., when delinquent adolescents or chronic alcoholics are to be "reformed" or "cured") it was necessary to insulate the individual from the larger group (the delinquent neighborhood or the social circles the alcoholic frequents) in order to reduce the efficacy of the forces that maintain the individual's level of behavior at the "old level" and to maximize the possibility of "unfreezing" and "moving the level" in the retraining or therapeutic subgroup. This led Lewin (1951) to propose the term "cultural island" to describe certain kinds of workshops, summer camps, and other enterprises designed to change participants' behavior or beliefs, and operating so as to withdraw the individual from his "normal" social environment for a period of time while a special sub-

culture was created in which changed standards could be developed

The paradoxical element in this doctrine of the "cultural island" is apparent. That is, to the extent that an individual is drawn away from his customary social environment, the forces that maintain the level of his behavior at that of his membership group are reduced and it is easier to change him. Furthermore, to the extent that an individual becomes a member of a special, culturally insular group, there will be forces on him to live up to its standards. The paradox is that when he returns from his withdrawal to his customary situation, the old forces come into play to pull him back into line with his back-home group or, in short, to return him to the activity level at which he was before he went away for training.

Lippitt (1949) has reported the results of training in a two-week summer workshop on intergroup relationships where a "cultural island" was created. One of his findings well illustrates the principle we have been discussing and throws some light on the factors minimizing "social regression" effects following the return of an individual to his customary social environment. Lippitt presents data on two teams of 6-7 persons who came from the same community and who became a "strongly cohesive group" during the workshop, on two similar teams which failed to develop strong cohesiveness, and on five individuals who were "isolates" — i.e., the only workshop participants from five particular communities. Prior to their training, all these participants had been interviewed and were rated as having roughly the same "power" or "influence" potential in their home communities. In a follow-up inquiry conducted 6-7 months after the workshop, it was found that all these subjects had become more active in intergroup work since their training, but that the increase was significantly greater for the strongly cohesive teams than for the weak teams, and significantly greater for the latter than for the isolated delegates.

Since the data give us no reason to suspect that there were appreciable differences in the amount of initial impact the training program had upon single individuals and team members (or at least the theory would predict that the differences would be in favor of greater impact on the "isolates"), it seems reasonable to conclude that we are seeing the "cultural island" principle operating in reverse to negate or diminish the effectiveness of the training. That is, when a single individual returns to the home group he is an island of new ideas, a deviant, who will more easily return to his former level of activity. But, when two or more individuals are retrained together and return to the same larger group, they constitute a subgroup in which the newly learned attitudes and activities constitute a group standard, a normatively approved way of behaving. The fact that other team members have the same norms creates the force field that sustains activity at the new level. Thus, Lewin's analysis of the force field at work, is, in general, confirmed by the Lippitt findings

Lewin's propositions about quasi-stationary equilibria can be restated in our own terminology without changing their significance as theoretical and empirical insights As we have already said, certain kinds of "quasi-stationary equilibria" that "have value or valence in themselves" (and these are the kinds of equilibria in which Lewin and we are most interested) are, in our terms, "norms" The actual behavior, which we call "activity," is included in the range of tolerated departure from norms — cf Lewin's statement that ". . quasi-stationary processes are not perfectly constant but show fluctuations around an average level" (1951, p 204). In short, members of a group do not always live up perfectly to the norms. We have no equivalent term for the force field (or its gradient characteristics of steepness or flatness) that Lewin talks about, but we have spoken of "rewards" that sustain and direct activity toward conformity to norms and we now introduce explicitly the notion of absence of reward or "negative reward," which latter is equivalent to "sanctions" or to punishment in a general sense Such "rewards" as these, both positive and negative, correspond to what we designate as "internal rewards." We see them as arising from interaction and social approval (disapproval) which, in our scheme, is intimately linked to sentiment, or to rank in the group Finally, the component of the force field to which Lewin assigns the maintenance of group activity at a given level we should have to treat as either instances of "external reward" (or its negative, which is something like "external deprivation"), or else assign to a nonsocial category, such as physical environment of the group, cognitive defects in its members, or absence of skill, resources, or knowledge. There may be also a third category of unknown and unanticipated forces that act as barriers to change which Lewin might assign to the category "foreign hull" — i.e., outside the individual's life space — and which we too should have to treat as random to the expectancies of the behaving individual; but such factors fall outside the scope of a social-psychological theory. In general,

however, the conceptual scheme we have proposed throughout this chapter seems capable of coming to terms with the empirical evidence on social change that Lewin and his followers have provided, and also does not seriously conflict with the theoretical position they espouse.

Conclusion

In this chapter we have been trying to do three things to review the research on small groups, to place the different studies under a rationally ordered set of headings, and to state the findings in the smallest number of independent hypotheses. To some extent, these efforts have gotten in the way of one another The research has been multifarious, some of the studies do not fit easily under any one rubric; when we put one study in one place and another elsewhere, we may do violence to historical links between them, and a single-minded concentration on the hypotheses would have meant that some studies would have been torn apart and considered in several different connections. The result has been compromise The best we have been able to do is to move slowly from what seem to us to be relatively uncomplicated studies to more and more complex ones. Our attempt to reduce the findings to a system of hypotheses has been more successful at the beginning than at the end of this review.

We believe strongly that progress in the study of small groups will be made just as rapidly through this process of codification as through the multiplication of new empirical research. But codification will require close examination of the relation between the languages in which research results are stated and the operations actually carried out in the research Only thus can we begin to overcome the problem of the confusion of tongues Successful codification will also produce the "disillusion of generality" — the recognition that a great variety of startling research results often follow from a small number of principles, quite close to common sense This has certainly been true of our hypotheses, so far as we have carried them But the fact that research findings only rarely violate common sense ought not to discourage anyone from conducting the rigorous research upon which our knowledge must be built Exceptions to common sense may be rare but they are invariably productive of important insights

We have acted, finally, on the assumption that there are no such things as contradictory findings. Given ordinary honesty on the part of investigators, findings that seem to contradict one another must in fact have been reached in different circumstances. The investigators may not know what the differences were, or recognize their importance. But the painstaking search for them is one of the most potent sources of growth in knowledge, enabling us to find the new phenomena while abandoning *none* of the old.

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CHAPTER 23

Mass Phenomena

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Mankind in the aggregate has a reputation for both good and evil. In our good character we are the "people," in our bad character the "masses." In a democracy the "people" cannot be criticized without threatening fundamental political assumptions. When mankind inspires criticism by his stupidity or cruelty it is likely to be directed against the "masses." José Ortega y Gasset makes such an attack in *The Revolt of the Masses* (1932) and this book, in its paperbound edition, is read by thousands of "people." The entertainment industries, when they are accused of debasing their media to the level of the "masses," take refuge in their democratic duty to serve "popular" taste. Mass Man can be the ogre of a century that takes the Common Man for its hero.

Social scientists have not been content to define mass phenomena as collective misbehavior. They have attempted to substitute neutral descriptive terms for the opprobrium that creates the category These are the attempts to formulate a "mass psychology."

TAXONOMY

In this chapter *collectivity* will be the name for any category of human beings The term does not imply actual physical congregation. Neither does it say anything about the psychology of the individuals concerned. A census taker who classifies together all voters between the ages of 22.5 and 24.5 creates a collectivity in our sense even though those involved have never gathered together in one place or thought of themselves as a group. A collectivity, then, is simply two or more people who are to be discussed as a category.

PRIMARY DIMENSIONS OF COLLECTIVITIES

Previous classifications have usually described the individual collectivity in terms of a narrowing focus of mutually exclusive alternatives There are crowds and there are small groups. The members of crowds are either congregate or they are not. Congregation can be intentional or unintentional The classification to be expounded here proposes, instead, four dimensions on which every collectivity can be placed. On each dimension three positions are recognized. Since these dimensions do not originate with us there is a discussion of their earlier appearances in the literature and a rationale for whatever reformulation may be involved in our usage.

Size. Collectivities vary in size. Three values are here rather crudely characterized as collectivities of a size to be contained within a room, collectivities of a size to be contained within a public hall or public square, and collectivities that are too large to congregate except through representatives. The three size values, then, are *room size, public hall size,* and *too large to congregate.*

Most writers have not made serious use of size in the classification of collectivities Bentley emphatically denied the importance of this dimension:

> The most obvious means of distinction lies in the number of associated individuals. Thus the simplest kind of congregate would seem to imply the conjunction of two individuals, the most complex the congregation of a multitude. But this appearance is false. The measure is quantitative. It does not rest upon the nature of the mental functions (1916, p 18)

Park and Burgess (1921) similarly held that the important distinction between the crowd and the public is not one of size. Le Bon (1903) so disdained collectivity size as a basis for classification that he included among crowds the jury as well as the entire French electorate, remarking: "At certain moments half a dozen men might constitute a psychological crowd . . ." (1903, p. 27). Beginning with an examination of crowds of the usual size Le Bon found psychological characteristics which he took to define the "crowd mind." A crowd exists, then,

wherever this kind of psychology prevails even though the resultant usage of the word "crowd" may violate its colloquial sense. This is, of course, a perfectly legitimate thing to do. Physicists began with terms from popular parlance and greatly altered their meanings as knowledge increased.

There is still some question, however, whether size may not be an important dimension in the analysis of collective behavior. F. H. Allport (1924) and K. Young (1930) are among those who have seen that it is important to distinguish collectivities involving face-to-face interaction from co-acting collectivities in which individuals are placed shoulder-to-shoulder. This difference is, of course, greatly dependent on collectivity size. Miller and Dollard (1941) have expressed a belief that size is an important factor in collective behavior Larger collectivities make better models for identification. Even such writers as Martin (1920), Freud (1922), and Strecker (1940), who equate the crowd mentality with an individual psychological state like paranoia, recognize that the paranoid and the crowd have arrived at their common ground through the operation of different mechanisms. All of the specific mechanisms suggested for the crowd are related to size.

From these opinions it would seem foolhardy to discard the size connotations attached to the colloquial language still used to name collectivities. Indeed, most social psychologists, when they use words like *group, crowd,* and *public,* show that they are aware of these semantic rules. In the present stage of knowledge concerning mass phenomena there is still a real possibility that size will prove to have psychological significance.

It is anybody's guess, however, at what points the size dimension should be cut. Rather than specify obviously arbitrary numerical rules, we have drawn upon the loose distinctions that seem to guide the use of English terms naming collectivities. The *room size* collectivity is likely to be called a *group.* The collectivity that fills a *public hall or square* is a *crowd,* a *mob,* or an *audience.* The collectivity that is *too large to congregate* except through representatives may be any number of things, including a *public,* an *electorate,* a *class,* or the *masses* themselves.

Congregation. Collectivities are congregate when one of the attributes by virtue of which individuals may be categorized together is physical proximity. The attribute of congregation assumes three values. Those collectivities which never congregate are assigned the value *never.* Others that congregate but once or, if more than once, irregularly, are described as *temporary-irregular.* A third type that congregates with some regularity is called *periodic.* To establish periodicity a collectivity must congregate at least three times, with rough equivalence of the two intervals.

In an early monograph, Bentley (1916) distinguished the "congregate" from the "assemblage." The congregate involves physical proximity of individuals, while the assemblage (despite the colloquial sense of the word) does not. Bentley held that a collectivity must either be a congregate or an assemblage, and this is certainly true for any given time. However, the extended family or the organization of professionals might be either one, depending on whether they are classified while the annual reunion is in progress or in the months between. It seems preferable to base the classification on a longer time slice in which these collectivities are *periodically* congregate. They differ in important ways from the throng of shoppers that is congregate on a *temporary-irregular* basis and should be differently classified.

Polarization. Collectivities are polarized when one of the attributes by virtue of which individuals may be categorized together is their roughly simultaneous attention to some stimulus object or event which we shall call the *focus.* Polarization assumes the same three values as does congregation.

Woolbert (1916) used the term "polarization" to characterize the audience, stressing the one-to-all character of the communication. Floyd Allport (1924) paralleled this dimension with his proviso that the members of a crowd must be attending and reacting to some common object. In the same category is Robert Park's (1921) statement that, in the crowd, the attention of individuals is focused upon some common object or objective. This object, he adds, tends to assume the character of a "collective representation."

For Tarde (1898) the crowd was distinguished from the public by the fact that all members of the crowd could be in sight of a single person or could be reached by a single voice. For the public this was impossible. It follows that in Tarde's day the polarized collectivity must also always have been a congregation. Radio and television have produced the noncongregate polarization and have made it important to distinguish between these two dimensions.

Identification. A collectivity is said to be characterized by identification when one of the attributes by virtue of which individuals may be categorized together is their tendency to

categorize themselves as members of the collectivity. This attribute, unlike the previous two, is psychological. The individual who identifies with a collectivity thinks of himself as belonging to it. He is likely to use the pronoun "we" with reference to the collectivity Identifications may not occur, in which case the value *never* is given. They may occur only in a state of congregation or polarization, in which case the value *temporary* is given. When identifications occur outside the situations of congregation and polarization they are described as *enduring*.

Bentley's (1916) assemblage is defined by more than noncongregation. It also involves a feeling of belongingness on the part of the members, which is what we have called identification. In the present system, however, identification is not coupled with any special conditions of congregation. Bentley recognized that there are great differences within the class of assemblages. In some there is "the bare feeling of belongingness" derived from some chance incident drawing attention to an individual's social membership, while at the other extreme there is the assemblage of individuals glowing with loyalty to the common cause. In the congregate or polarized state individuals are characterized by an attribute making it impossible to see them as collectivities. Individual members have only to become aware of one of these attributes to feel that they belong to a collectivity. For example, "I was a member of the crowd in Times Square last night" (congregation), or "I was one of those who saw Milton Berle on television last night" (polarization). Congregation or polarization, then, may give rise to Bentley's "bare sense of belonging," which appears in the present system as a *temporary* identification.

Le Bon distinguished heterogeneous collectivities from homogeneous. His book *The Crowd* (1903) is principally concerned with the heterogeneous variety as exemplified in the crowds of the French Revolution. Such collectivities differ in important ways from the more homogeneous sect, class, or caste. Le Bon was not dealing with homogeneity as perceived by the collectivity member but rather with the externally judged degree of homogeneity. There is an infinite number of dimensions along which homogeneity might occur. A particular collectivity of the French Revolution might contain individuals all living in the same quarter of Paris, all wearing shoes with holes in them, and all less than six feet tall. Are these people more or less like one another than the geographically separated members of a sect who share certain religious beliefs? If degree of homogeneity is to be assessed from the number of dimensions in which people are alike this assessment will clearly vary with the number of dimensions recognized, and this number is largely dependent on the ingenuity of the assessor. The sect's "common religious beliefs" might be broken into a long list of particulars "Living in the same quarter of Paris" involves dealing with the same tradesmen, walking on the same streets, enjoying the same weather, and so on forever. There is no clear way to determine which of two collectivities is more homogeneous in this sense.

Still it is obviously important to distinguish families, clans, and classes from the collectivity that congregates but once to produce the Broadway Triumph of a war hero Le Bon's important distinction appears in the present system as the difference between collectivities involving *enduring* identification and those that do not. In the family, class, sect, caste, or clan there is an awareness of membership that survives the dissolution of the congregation or polarization. Certainly the distinction here is not properly conceptualized as one of degree of homogeneity. What is involved is a difference in the importance, in the "centrality" of the dimensions on which homogeneity exists. It is not that members of a religious sect are more alike than people watching a street fight, but that they are alike in more significant ways. The centrality or significance of dimensions is not easily determined. The present classification suggests that homogeneity along more central dimensions will manifest itself in a tendency to be aware of membership in the indicated collectivity at times other than those of congregation or polarization. Homogeneity along less central dimensions will not show this tendency.

RELATIONS BETWEEN THE PRIMARY DIMENSIONS

The primary dimensions are independently defined so that no one entry exercises a logical constraint on any other entry. This is a desirable feature for a system of classification, since it avoids duplicating information. Logical independence does not, however, guarantee empirical independence. One entry may, in fact, be associated rather consistently with some other entry or entries. Thus, although the terms are independently defined, polarization would at one time have involved congregation. In Tarde's day there were no means whereby large numbers of people could simultaneously attend to the same stimulus without being in close physical proximity. This situation changed

with the invention of the mass media — radio and television. There remain, however, many other empirical relationships These are discussed following a paragraph that substantiates the claim of logical independence.

Logical independence. In Table 1 a number of collectivities are classified to illustrate some of the more important patterns of values in the four dimensions. There are two apparent exceptions to the logical independence of these dimensions. In the first place, any collectivity whose size is judged *too large to congregate* must also receive the value *never* under congregation. This dependence is removed by changing the meaning, in this case only, of the values *never, temporary-irregular,* and *periodic* to refer to congregations of representatives. Such collectivities can then receive any of the three values in the congregation column and these are written with subscript R. Secondly, whenever a positive value appears under congregation, polarization, or identification there must be a collectivity, since any of these three values provides a basis for categorization. However, the collectivity is not a dimension but is the condition for appearance in the table. So this proviso, like the first, leaves the independence of the dimensions unaffected.

Empirical independence. There are undoubtedly some empirical implications among the entries in Table 1, although none of these is anywhere near perfect predictability. We have seen that any positive value on the three dimensions (congregation, polarization, identification) logically implies a collectivity The converse, however, is not true, either logically or empirically. Collectivities may assume any pattern of values, including negatives on all three dimensions Six names drawn at random from the phone book and voters between the ages of 22.5 and 24.5 years of age are collectivities of different size that take the value *never* for congregation, polarization, and identification. These externally created collectivities clearly ought to be classified together and distinguished from other possibilities

A congregate or polarized collectivity is likely to show a *temporary* identification. There is a basis for "we feeling" in the fact of congregation or polarization which need only come to the attention of the individual members to produce a *temporary* identification. In practice it is tempting to infer the psychological state from simple congregation or polarization, since these last two are so much more easily assessed. This cannot safely be done. The casual throng of shoppers may overlook its congregation and remain unidentified. The national radio audience may overlook the polarized mass and develop no "we feeling."

A somewhat more interesting and unusual case is that of the collectivity that involves *enduring* identification but is *never* congregate or polarized. In Henry James' novel *The Princess Casimassima* some of the members of a secret political organization consider this to be their most significant membership and yet are never congregate or polarized. The protagonist of this novel is a young man raised in poverty who believes himself to be the bastard son of a duke. In important ways he is identified with an aristocracy of which he has never met a single member. Using logical terms, we might say that he has an idea of the intension of this aristocracy but is not acquainted with any member of its extension. This young man eventually finds himself congregate with a segment of the aristocracy and he is powerfully affected — feeling that he is with his own kind at last. There is, of course, one collectivity that involves extremely enduring identifications, that which exists between a man and the unknown woman whom he will love. When such dyadic collectivities become congregate on the silver screen it is customary for one or both members to say, "I feel as if I'd known you all my life" and so, in our sense, they have.

Periodic congregation or polarization must be planned. In many cases this involves *enduring* identification. The American Legionnaire anticipates annual reunion with his buddies and is often aware of his membership with them There are, however, *periodic* congregations and polarizations that involve no real identification. The millions of individuals across the country who regularly tune to a particular radio or television program do not do so in eager anticipation of polarizing with their compatriots They are concerned with the *focus* and it is quite possible that they will remain largely unidentified with the audience. The same thing can be true of the people who hold subscription tickets to the theater, opera, or concert. Although periodical congregates, the fact of congregation may be of little interest to them.

TABLE 1

EXAMPLES OF THE USE OF THE PRIMARY DIMENSIONS

Size	*Collectivity*	*Congregation*	*Polarization*	*Identification*
Room	Conjugal family	Periodic and temporary-irregular	Periodic and temporary-irregular	Enduring
	Club	Periodic	Periodic	Enduring
	People who meet at a bus stop	Periodic	Periodic	Temporary*
	The 1st 6 names in a phone book	Never	Never	Never
Hall	American Psychological Association	Periodic	Periodic	Enduring
	Lynch mob	Temporary-irregular	Temporary-irregular	Temporary*
	A throng going to work	Periodic	Never	Temporary*
	Movie audience	Temporary-irregular	Temporary-irregular	Temporary*
Too large to congregate	Voters from 22 5 to 24.5	Never_R	Never	Never
	People who say "23 Skidoo"	Never_R	Never	Never
	Mars panic	Never_R	Temporary-irregular	Temporary*
	The Kingdom of Father Divine	Periodic and temporary-irregular_R	Periodic and temporary-irregular	Enduring

*In these cases it is also possible that Identification would assume the value *never*.

SECONDARY DIMENSIONS OF CLASSIFICATION

In Table 2 there are listed many principles for the classification of collectivities In general, they overlap one another and the primary dimensions listed above Some of the more important logical and empirical dependencies are described in this section.

1. *The polarization cluster.* K Young's (1930) distinction between "shoulder-to-shoulder" and "face-to-face" behavior overlaps Woolbert's (1916) between "polarization" and "nonpolarization." In face-to-face behavior all possible channels of communication are utilized, while the term shoulder-to-shoulder defines the conditions for primarily polarized communication Le Bon divided "anonymous" collectivities from "nonanonymous," with examples but no definitions. Anonymity may be very literally defined as a condition of namelessness. To what degree this must be true for anonymity to prevail is a moot point. In complete nonanonymity every man would know the name of every other man. Where the majority of these possibilities are not realized we might speak of anonymity, where they are realized of nonanonymity.

It would seem that conditions of face-to-face interaction, nonpolarization and nonanonymity are more likely to occur on the level of the group than in the large collectivities It is easier to know the names and utilize all the channels of communication in a small group than in a large crowd Anonymity, shoulder-to-shoulder orientation, and polarization are more likely on the level of the collectivity that fills a public hall or square.

2. *The organization cluster.* A number of theorists have distinguished organized collectivities from unorganized. Somewhat parallel distinctions are drawn in terms of "conventionalized" and "casual," "permanent" and "temporary." Blumer (1951), in fact, defines the casual collectivity as having a momentary existence and a very loose organization with scarcely any unity. The conventional collectivity is enduring and organized. The permanent-temporary distinction was rather casually thrown off by Freud (1922). Despite an apparent simplicity its meaning is not clear. Which phase is permanent — the congregation, polarization, or identification? If "permanent" is literally construed, it is impossible to think of any collectivity that is permanent in any of its phases unless it be two convicts who have been cellmates since the days of their first delinquency. Duration is one of the obvious dimensions to be used in classifying collectivities but it is as difficult to cut up properly as the size continuum Waelder (1939) suggests that the lasting collectivity "endures" for generations, while the transitory unites people "only for a while" In any event, Waelder is of the opinion that the division along transitory-lasting lines coincides largely but not always with the division into organized and unorganized

McDougall (1920) lists five characteristics of organized collectivities

(a) There must be some degree of continuity of existence of the collectivity. This continuity may be predominantly material or formal Material continuity exists when the same individuals are members over a period of time Formal continuity depends on the persistence of a system of generally recognized positions each of which is occupied by a succession of individuals.

(b) In the minds of the members of the collectivity there must be some idea of the collectivity, of its nature, composition, functions, and capacities, and of the relations of the individuals to the collectivity.

(c) A third condition that McDougall lists as perhaps not absolutely essential is the interaction (especially in the form of conflict and rivalry) of the collectivity with other similar collectivities animated by different ideals and purposes and swayed by different traditions and customs

(d) There will usually exist a body of traditions, customs, and labels in the minds of the members of the collectivity which determine their relations to one another and to the collectivity as a whole.

(e) There will be differentiation and specialization of the functions of the members

The specification of continuity of existence suggests that organized groups will tend to be permanent in any reasonable meaning of that term. The emphasis on traditions, customs, labels, and formal positions suggests that collectivities will tend to be conventional rather than casual. The attributes of permanency and conventionality may then be taken to represent part conditions for organization.

Conditions (b) and (d) prescribing that members shall be aware of the nature of the collectivity and of their relations to it suggest that organized collectivities will involve identifications. The requirement of some continuity of existence implies *enduring* identification extending beyond simple congregation or polarization. Division of labor seems to be the antithesis of polarization, where the audience co-acts, and it would, therefore, appear that there can be no organized and polarized collectivities. Such is not the case, however, as it is possible for a collectivity to be *temporarily* or

TABLE 2. DIMENSIONS USED FOR THE CLASSIFICATION OF COLLECTIVITIES

Dimension	*Author*	*Definitions*	*Examples*
Size Simple-complex	Bentley (1916)	Simplest The conjunction of two individuals. Complex The congregation of a multitude	Simple Small number of individuals in conversation Complex A crowd at a circus
Congregate-assemblage	Bentley (1916)	Congregate Individuals in physical proximity. Assemblage Individuals not in physical proximity but having a sense of belonging together.	Congregate Audience at a play Assemblage Readers of a newspaper column
Polarized-not polarized	Woolbert (1916)	Polarized An "all-to-one" relation in which the field of attention of the audience is occupied by the speaker. Not polarized The field of consciousness is not primarily occupied by the speaker	Polarized A theater audience Not polarized Face-to-face conversation
Homogeneous-heterogeneous	Le Bon (1903)	Homogeneous Individuals with some common belief, profession or social status Heterogeneous Individuals of "any description, of any profession, and any degree of intelligence" (Le Bon, 1903, p 179)	Homogeneous The sect, class, or caste Heterogeneous The street crowd or parliamentary assembly
Face-to-face-co-acting	F. H. Allport (1924)	Face-to-face ". . . the individuals react mainly or entirely to one another" (Allport, 1924, p. 260). Co-acting. ". . the individuals are primarily occupied with some stimulus other than one another" (Allport, 1924, p. 261).	Face-to-face Individuals in conversation, a committee Co-acting Pupils reading a lesson in concert
Anonymous-not anonymous	Le Bon (1903)	Anonymous } Undefined Not anonymous }	Anonymous Street crowds Not anonymous: Juries
Organized-unorganized	McDougall (1920)	Organized· 1. Continuity of existence 2. Awareness of membership 3. Interaction with other organizations 4 Body of traditions 5. Differentiation of function Unorganized. The absence of the above.	Organized Church, Army Unorganized: Street crowds
Temporary-permanent	Freud (1922)	Temporary } Undefined Permanent }	Temporary Crowds described by Sighele and Le Bon Permanent: Church and Army
Natural-artificial	Freud (1922)	Natural Presumably no external force is required to accomplish the goals described below. Artificial· "A certain external force is employed to prevent them from disintegrating and to check alterations in their structure" (Freud, 1922, p. 42).	Natural The clan or tribe Artificial Church, Army
Accidental-intentional	Young (1930)	Accidental } Undefined Intentional }	Accidental· Onlookers at excavation Intentional Theater audience
Having a leader-leaderless	Freud (1922)	Having a leader } Undefined Leaderless }	Having a leader. Church, Army Leaderless Some street crowds

periodically polarized and to exhibit division of labor when not polarized. Thus the membership of the local unit of the Democratic Party is differentiated in function except when they are polarized in their attention to a political speech This interim division of labor is usually accompanied by feelings of identification

3. *The "natural-artificial" dimension* Freud divided natural collectivities like the family, clan, and tribe from such artificial collectivities as the church and the state. We might say that there are "achieved" collectivity memberships and "ascribed" memberships. Individuals are born into families, clans, castes, and races but they are made into Legionnaires, Republicans, and psychologists At first glance the division shows some overlap with Le Bon's distinction between homogeneous and heterogeneous collectivities and may, therefore, be put forward as a possible conceptualization of the difference between collectivities that are alike in important ways and collectivities that are alike in trivial ways Considering, however, that men are born into blood groups and eye-color classes as well as tribes and families, it is clear that "natural" does not reliably render the sense of "important."

4. *The "accidental-intentional" dimension.* Some collectivities congregate accidentally and others intentionally It is usually assumed that the meaning of these terms is self-evident and so it is, introspectively Behaviorally, the difference is not so obvious. Perhaps the intentional congregation involves some verbal prefiguring of the event. Perhaps intentional congregation shows a purposiveness that can be behaviorally translated The terms can be applied to polarization as well as to congregation The scheduled radio program is verbally anticipated. *Periodic* congregations or polarizations will tend to be intentional, since they must be scheduled. However, intention does not necessarily involve identification since, as we have seen, the anticipation may center on either the *focus* or the audience.

5. *The "leader-leaderless" dimension* Freud considered the most important aspect of a collectivity to be its possession or lack of a leader. As Chapter 24 of this volume attests, there are many kinds of leadership. In many collectivities the leader is simply the *focus* of attention. In such cases leadership implies polarization, although the converse is not true. Freud (1922) speaks of Christ as the leader of the Christian Church and the Commander-in-Chief as leader of the Army, using leader in his sense of father-figure. The libidinal ties or identifications of members of the collectivity are held by Freud to derive from the identification of all the members with the father-leader. In this sense, then, the collectivity with a leader may be expected to manifest identifications

Crowds

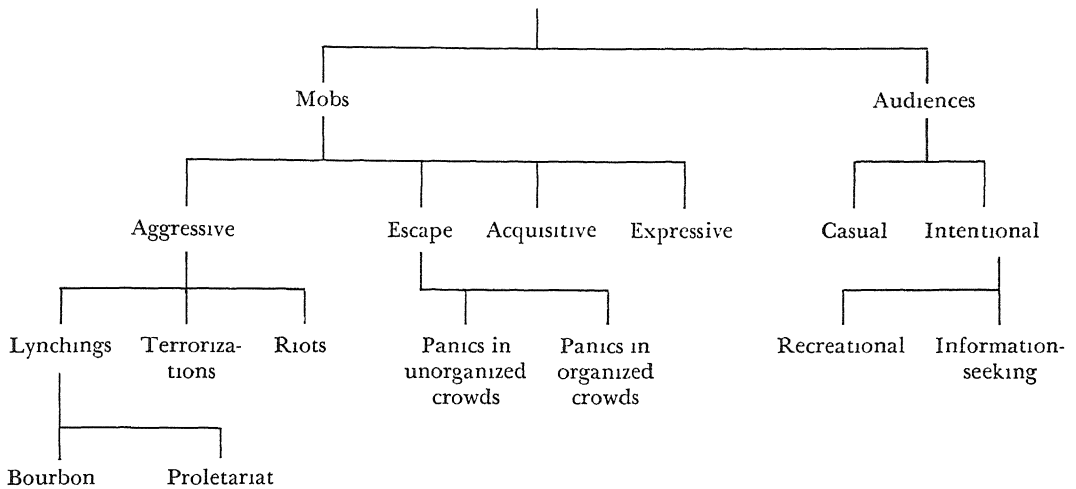
Which of the collectivities we have described would be considered mass phenomena? Certainly the *room-size* collectivity is too small to qualify Mass phenomena do not ordinarily include group interaction On the next level of size the crowd is a central concept. Crowds are collectivities that are congregate and polarized on a *temporary-irregular* basis and which usually involve only *temporary* identification That means they will tend to be co-acting, shoulder-to-shoulder, anonymous, casual, temporary, and unorganized collectivities.

Because crowd members tend to co-act with little differentiation of function, it is possible to subdivide crowds in terms of the dominant character of the crowd behavior. Park and Burgess (1921) distinguished the "active" from the "passive" crowd, labelling the crowd in action a "mob." The kinship of this word with "mobile" makes "mob" an appropriate designation for the kinetic crowd. The relatively passive crowd we call, in accordance with good precedent, the audience. Among *mobs* we distinguish four behavior tendencies — the aggressive, the escape, the acquisitive, the expressive If these are exhaustive of the possibilities it is only because the expressive mob is a wastebasket category including all those that show no other behavioral tendency Among *audiences* we distinguish the casual and intentional varieties. Each of these kinds of crowd will be examined in more detail in the sections that follow. A scheme of the classification appears in Table 3

THE PROPERTIES OF MOBS

The active crowd or mob has been the principal topic in the study of mass phenomena. Certain properties have been attributed to mobs in general. Sometimes these properties have been discovered in actual observation of mobs but more often they have been abstracted from the descriptions of observers. There is little disagreement in the textbook discussions, since

TABLE 3

THE VARIETIES OF CROWDS

most of the authors have simply rendered Le Bon.

1. *Mental homogeneity.* Le Bon enunciated the Law of Mental Unity of the Crowd

> Whoever be the individuals that compose it, however like or unlike be their mode of life, their occupations, their character, or their intelligence, the fact that they have been transformed into a crowd puts them in possession of a sort of collective mind. (1903, p. 29)

The question of the group mind has been discussed in detail by G. W. Allport in Chapter 1 of the first volume of this book We are here interested in the attribution of homogeneity to the mob. Although rejecting the notion of the collective mind, F. H Allport accepted the idea of ". . . conformity not only of thought and belief but of feeling and overt action" (1924, p. 304) as true of the mob. McDougall stressed the homogeneity of the panic (escape mob).

> There is one kind of object in the presence of which no man remains indifferent and which evokes in almost all men the same emotion, namely, impending danger, hence the sudden appearance of imminent danger may instantaneously convert any concourse of people into a crowd and produce the characteristic and terrible phenomena of a panic. (1920, p. 24)

Our classification of crowds is based on the presumption that sufficient homogeneity exists within a crowd to make it possible to speak of a general behavior tendency. Although the mob is behaviorally homogeneous it was distinguished by F. H. Allport from the co-acting group in terms that introduce the second general property of mobs

2. *Emotionality.* F. H. Allport wrote:

> A crowd is a collection of individuals who are all attending and reacting to some common object, their reactions being of a simple prepotent sort and accompanied by strong emotional responses These conditions distinguish the mob from the co-acting group, since in the latter the attention of each individual is usually concentrated upon his own task and his responses are non-emotional habits of a rather complex type. (1924, p. 292)

Le Bon detailed this emotionality. "He (the mob man) possesses the spontaneity, the violence, the ferocity and also the enthusiasm and heroism of primitive beings" (1903, p. 36). McDougall said: "Such exaltation or intensification of emotion is the most striking result of the formation of a crowd" (1920, p. 24). Martin was of the opinion that the mob cannot be characterized as quantitatively more emotional, but rather that it is selective in the emotions produced.

> The crowd doubtless inhibits as many emotions as it releases Fear is conspicuously absent in battle, pity in a lynching mob. Crowds are notoriously anaesthetic towards the finer values of art, music, and poetry. (1920, p. 18)

3. *Irrationality.* In the thinking of psychologists of the 19th century and early 20th century stupidity or irrationality was an inevitable concomitant of emotionality. Le Bon suggested: ". . . the crowd is always intellectually inferior

to the isolated individual" (1903, p. 37). Martin added. "People in crowds are not thinking together . . They are not working together, they are only sticking together" (1920, p 286) McDougall continued the attack

> Not only mobs or simple crowds but such bodies as juries, committees, corporations of all sorts which are partially organized groups are notoriously liable to form judgments, to form decisions, to enact rules or laws so obviously erroneous, unwise, or defective that anyone, even the least intelligent member of the group concerned, might have been expected to produce a better result (1920, p 41)

Le Bon worked up a bill of particulars to document the stupidity of the mob. Fickle, credulous, intolerant, dictatorial, unreasoning, responsive to lurid images — this is the mind of the mob Martin (1920) and Strecker (1940) especially emphasized the mob's hypocrisy in explaining its murder and lechery with an appeal to exalted purposes. Martin considered that Le Bon was misled by these false protestations when he held that the mob was capable of great heroism as well as dark deeds. In Martin's view the mob is always unintelligent and always wicked.

Le Bon had an aristocratic bias which inclined him to equate the lower classes (economically and socially) with the mob "Civilizations as yet have only been created and directed by a small intellectual aristocracy, never by crowds" (1903, p. 19) To Le Bon, the French Revolution was the beginning of crowd rule Martin, however, felt that Le Bon overlooked the "dominant crowd," the "crowd which brands everything that opposes its interests as anarchy and Bolshevism" (1920, p. 166).

Martin, Freud, and Strecker all saw the irrational mechanisms of the mob as continuous, with certain kinds of individual behavior. Martin (1920) was impressed by the parallel with paranoia, Strecker (1940) saw the childish character of the mob, Freud (1922) was struck by its kinship with hypnotic states. Katz went so far as to say:

> There is no difference between the logic of men in crowds and their logic elsewhere . . . Nor is the logic of the man in the crowd more of a systematized delusion than is the economic philosophy of the member of parliament. (1940, p 160)

Strecker topped this with: "On a scale of intelligence the mob would be inferior to a paranoiac" (1940, p. 55).

Le Bon's view of the mob, a view that influenced so many other writers, can be seen as a part of the movement led by Freud and Pareto, to explore the unconscious, irrational elements in all human behavior In the last few years a new rationalism has burgeoned in social psychology. Beginning with S E Asch's (1940) reinterpretation of prestige suggestion, we have seen that certain "irrational" social behavior is in some sense rational D Katz (1940) objected to Martin's (1920) blanket description of crowd beliefs as delusions of persecution and of grandeur The feudal serf and laboring man are not necessarily always deluded They have *in fact* been persecuted. The feeling of power of the middle classes following the French Revolution was no delusion They virtually remodeled the world. Very recently Alexander Mintz (1951) has proposed an interpretation of panic behavior which suggests that it is more sensible than has generally been supposed The famous "mad rush" for the fire exit is a fairly rational reaction when others have stepped out of line and are threatening to block your way. As yet, however, no one has been impressed with the quality of intelligence manifested in the riot and lynching

THE MECHANISMS OF MOB BEHAVIOR

A variety of mechanisms have been proposed in an effort to "explain" mob behavior. Scientific statements are "explained" when they are deduced from general premises (Feigl, 1945). The explanation of a rat's performance in a maze may be found in the postulates of Hullian theory A falling apple may be explained by reference to the theory of gravitation. Explanations are not satisfactory when the only evidence for the empirical truth of the general premise is the phenomenon that they pretend to explain "Explanations" at this level must be interpreted as tentative generalizations to be tested.

1. *Mechanisms explaining mental and behavioral homogeneity*. With reference to the problem of explaining the homogeneity of the mob, Freud said·

> . . what we are offered as an explanation by authorities upon Sociology and Group Psychology is always the same, even though it is given various names, and that is the magic word "suggestion." (1922, p. 34)

Very generally these mechanisms all name the tendency of individuals in a crowd to behave like one another. For Tarde (1903) it was imitation, for Sighele suggestion (1901). For Le Bon, contagion and suggestion were used to name this tendency; the two not being clearly differentiated from one another, as Freud saw. Le Bon "explained" contagion and suggestion

by calling them hypnotic phenomena. This was even less enlightening then than it is now. McDougall suggested "primitive sympathy," which he defined as follows

> The principle is that, in men and in the gregarious animals generally, each instinct with its characteristic primary emotion and specific impulse is capable of being excited in one individual by the expressions of the same emotion in another in virtue of a special congenital adaptation of the instinct on its cognitive or perceptual side. (1920, p 25)

Freud said of this approach:

> McDougall for a moment gives us an impression that his principle of primitive induction of emotion might enable us to do without the assumption of suggestion But on further consideration we are forced to perceive that this principle says no more than the familiar assertion about "imitation" or "contagion" except for a decided stress on the emotional factor (1922, pp 34-35)

McDougall took considerable umbrage at this evaluation of "primitive sympathy" but, although he restated his position in some detail (1925), it is difficult to see in what way it is more than a generalization of the facts of contagion

The notion of the "circular reaction" favored by Blumer (1951) and Miller and Dollard (1941) says much the same thing as the principle of "primitive sympathy" except that it is not necessarily held to be congenital. Blumer wrote

> This (circular reaction) refers to a type of interstimulation wherein the response of one individual reproduces the stimulation that has come from another individual and in being reflected back to this individual reinforces the stimulation (1951, p. 170)

For Park the key term was "rapport."

> Rapport implies the existence of a mutual responsiveness, such that every member of the group reacts immediately, spontaneously, and sympathetically to the sentiments and attitudes of every other member. (1921, p. 893)

F. H. Allport referred to "social facilitation."

> In the crowd there is also the attitude for the overt reaction to flight or attack prepared in each individual by the common stimulus to which all are attending. This is released and augmented by the sight of others performing the same act. (1924, p. 298)

We have many names for the tendency of the crowd to become homogeneous — imitation, contagion, suggestibility, primitive sympathy, circular reaction, rapport, and social facilitation. What more than a name do we want? The homogeneous behavior of the crowd is said to have a particular character — it is emotional and stupid Sighele (1901) saw clearly that the mechanism of suggestion did not suffice to explain the criminal abandon of the mob. We should like, first of all, to know why this kind of behavior "contages," rather than reasonable, cooperative action In the second place, it is clear that even irrational and emotional behavior does not always diffuse through a collectivity. Under what conditions will it do so? The answer to this has too often been that contagion of emotion will occur in the mob, with the mob defined as a collectivity manifesting contagion. Something better than this must be found.

2 *Mechanisms explaining why the mob is emotional and irrational.* The quality of mob behavior has always required explanation because of its apparent discontinuity with the private characters of the individuals involved. Le Bon said:

> Contrary to an opinion which one is astonished to find coming from the pen of so acute a philosopher as Herbert Spencer, in the aggregate which constitutes a crowd there is in no sort a summing up of or an average struck between its elements What really takes place is a combination followed by the creation of new characteristics just as in chemistry certain elements when brought into contact — bases and acids for example — combine to form a new body possessing properties quite different from those of the bodies that have served to form it. (1903, p. 30)

In another paragraph he said·

> This explains how it was that among the most savage members of the French Convention were to be found inoffensive citizens who, under ordinary circumstances, would have been peaceable notaries or virtuous magistrates. (1903, p. 28)

These remarks suggest the mental chemistry of John Stuart Mill and remind us of the Gestalt rallying cry — "the whole is other than the sum of its parts." This view is abundantly exemplified in perceptual phenomena. Combinations of warm and cool stimulation delivered to the proper spots on the skin do not result in warmth plus cold but in synthetic heat. Identical lines of light turned off and on in proper spatial and temporal relationship are not seen as two alternating lights but as a single light in apparent motion. In each of these cases combination produces a result that would not have been anticipated from a study of the parts in other settings or in "isolation." In similar fashion, Le Bon presumably would not have predicted the bloody capabilities of a French

petit bourgeois from his drawing-room behavior.

Crowd behavior is certainly "emergent" in that it is quite unlike some other behavior of which the individual is capable. For the psychologist who limited his observations of humanity to the drawing room or Sunday School there would be surprises in stag parties, family quarrels, and the streets of large cities. For the specialist in mob violence, meditation and love might be emergent human capabilities

"Emergence" is a failure of antecedent prediction — a condition to be overcome with more adequate understanding. Our awareness of "synthetic heat" causes us to modify our notions of thermal sensitivity Similarly, our awareness of the mob must influence our understanding of the individual There will continue to be new properties in the whole but these will not be unexpected from a proper conceptualization of the parts.

The emotionality and stupidity of the mob have been explained in much the same way by all theorists. It is assumed that the individual possesses the potentiality for mob behavior but that these impulses are ordinarily controlled by social considerations. The mob acts only to take the lid off pre-existent urges.

Sighele simply held that men possess *"les instincts de cruauté et l'amour du combat"* (1901, p 80) Le Bon believed that our conscious acts are the outcome of an unconscious substratum. This unconscious is atavistic. Le Bon described it as "under the influence of the spinal cord" and as more characteristic of beings belonging to inferior forms of evolution — women, savages, and children for instance. At the same time the unconscious was held to be racial. At times Le Bon spoke of the properties peculiar to the Latin crowd, the French crowd, or the English crowd. The atavistic claims, on the other hand, sound as if he had thought of the unconscious as homogeneous throughout the human species.

Martin disagreed with Le Bon's racial suggestions. He identified the unconscious with the socially repressed without giving his opinion as to the degree to which this repressed is a human universal. It is not clear whether he recognized that societies have different standards and that the repressed would vary from one society to another (rather than from race to race) or whether he held that there are certain inevitable repressions

Freud's *Group Psychology and the Analysis of the Ego* (1922), appearing at nearly the same time as Martin's *The Behavior of Crowds* (1920), presented views very similar to those of Martin. Freud included both the deeply buried racial mind and the repressed in the unconscious. He did not speak of racial differences, and probably meant racial unconscious in the sense of human unconscious. S. (1940) and Waelder (1939) have follow. Freud's lead in their characterization of the unconscious that is released in the crowd

Floyd Allport has often been taken to be the chief opponent of Le Bon's "emergence" thesis The text for this interpretation is

> Nothing new or different was added by the crowd situation except an intensification of the feelings already present and the possibility of concerted action The individual in the crowd behaves just as he would alone, *only more so.* (1924, p 295)

While this statement certainly sounds like the antithesis of Le Bon's emergence statement quoted above, notice that Le Bon's actual theory of mob behavior would make it possible for him to accept Allport's statement as it stands. Since Le Bon held that the mob releases impulses in the individual unconscious, he might very well have held that nothing new is added in the crowd "except an intensification of the feelings already present and the possibility of concerted action" Both men agreed that the individual behaves differently in the mob. The disagreement was over the nature of the individual potential for mob action. Allport rejected McDougall's notion of "primitive sympathy" on the grounds that the individual will not invariably respond sympathetically. He used a parable of a small boy and girl who are tumbled out of a wagon. The boy, with difficulty, controls his impulse to cry until the little girl gives way to hers. For this sympathetic reaction to occur there had to be an emotional preparation to cry. Allport agreed with Le Bon, Martin, Freud, *et al.*, that the mob simply releases existent impulses. However, he pointed out·

> In many instances there is nothing unconscious about the drives or the conflicts which they engender in individuals. (1924, p. 317)

In a particular strike riot several scabs were killed. Allport held that while each individual felt the desire to attack the intruders, none would have done so in cold blood. The egoistic impulse to punish the scabs would ordinarily be inhibited by a sense of responsibility, a respect for the lives of others. In the mob the egoistic impulse overwhelms the socialized drives. But it is incorrect to hold that the inhibited impulses are always unconscious.

McDougall did not speak of the unconscious

in connection with the crowd but it is clear from many statements that he conceived of pre-existent latent impulses which are released in the crowd

> . . . the individual feels himself enveloped and overshadowed and carried away by forces which he is powerless to control, he therefore does not feel called upon to maintain the attitude of self-criticism and self-restraint which under ordinary circumstances are habitual to him, his more refined ideals of behavior fail to assert themselves against the overwhelming forces that envelop him (1920, p. 40)

Miller and Dollard (1941) also held that the responses evoked by mob excitement are ready-made but not necessarily unconscious. No considerable amount of learning of new responses occurs in the mob. Persons who do not have the requisite responses do not react to crowd stimulation. Lynch mobs arouse protest, not conformity, from many people in the South

Everyone agrees, then, that the mob acts only to release prepared impulses. There is disagreement as to whether these impulses are always unconscious. With the emphasis on the unconscious there is likely to be a stronger sense of emergence in the behavior of the mob.

All of these writers who assumed the existence of inhibited impulses to be released in the mob also assumed that the members of the mob are homogeneous with respect to these impulses Sometimes the homogeneity is assumed to be species- or race-wide, as in Le Bon, and at other times limited to a particular interest group, as in Katz' (1940) treatment of the "class crowd" The mental and behavioral homogeneity of the mob, then, may be separated and derived from different sources The contagion mechanisms serve to produce overt behavioral homogeneity from individuals who were already mentally homogeneous on one or another level of consciousness or unconsciousness.

3 *Mechanisms explaining the release of emotional and irrational behavior.* It is not enough to say that the mob releases inhibited impulses The conditions of this release must be spelled out. Le Bon and many others have pointed out that there is a *loss of responsibility through anonymity* in the mob. The individual realizes that if all are active none can be punished Mobs are not brought to justice. In Southern lynchings the officers of the law may themselves be active in the mob This explains why individuals who are only restrained from committing certain acts by fear of punishment become involved in criminal mobs.

F. H. Allport (1924) used the *impression of universality* to explain the tendency for individuals to adopt the morality of the mob. Seeing that everyone is pursuing a runaway Negro, the individual is led to believe that this is the right thing to do. As Miller and Dollard (1941) pointed out, a large mob carries prestige. There is a tendency to believe that it cannot be wrong

It is possible that the *impression of universality* is only one manifestation of a very general tendency to accept present temporary frames of reference as representing more enduring frames. Koffka (1935) has described for visual perception the greater stability of the framework than of the "things" within the framework Suppose a room is tilted so that the walls do not represent gravitational vertical and the floor and ceiling are no longer horizontal An individual within that room, who naturally stands in the true vertical, may see the walls and floor in their normal orientation and himself tilted at a peculiar angle Suppose a student has been above the average in intelligence at his prep school In college, however, he is somewhat below average. Perhaps he will realize that he is the same boy as before but that the people in his immediate surroundings are more intelligent than those with whom he used to live More often, however, he sees the frames as unchanged and himself as absolutely debased — as inferior to people in general. Individuals are sometimes able to maintain their standards in a mob. Most Southerners do not become involved in lynchings. They have well-established standards which cannot be upset by mob action They see the mob as tilted out of the frame — as deviant from a more important, a more permanent, a more general morality. Presumably this is Kipling's ability to "keep your head when all about you are losing theirs."

Freud (1922) believed that the leader of a collectivity might displace the individual's conscience, acting, as it were, *in loco parentis.* He wrote:

> A (collectivity) of this kind is a number of individuals who have substituted one and the same object for their Ego Ideal and have consequently identified themselves with one another in their ego. (1922, p 80)

The leader exerts a hypnotic influence, like that of a man's beloved. The leader is the law of his being, the surrogate for the Ego Ideal. This submission to the leader derives from an unconscious linkage between the leader and the father of the primal horde. The members of the collectivity are made homogeneous through their identification with a common father substitute. When the leader is a demagogue or

revolutionary the mob, deprived of its controlling Ego Ideal, may be emotional and irrational.

There are, of course, mobs lacking any clear leadership that are nevertheless homogeneously irrational. Of these Freud said

> We should consider whether (collectivities) with leaders may not be the more primitive and complete, whether in the others an idea, an abstraction, may not be substituted for the leader . and whether a common tendency, a wish in which a number of people can have a share, may not in this same way serve as a substitute. (1922, p 53)

McDougall quite properly spotted this as the weakest point in the theory. Waelder picked up Freud's cue and developed it as follows.

> In the mass guided by ideas people feel that the mass — as a mystical entity — will care for everything and as long as one is certain of its consent one has not to be afraid of anything (1939, p. 30)

Moral authority is said to reside in the mass very much as it does with the *impression of universality* Not clear, however, is the libidinal mechanism that makes a father-substitute of the mass — let alone of an idea. Since we quoted Freud's opinion of McDougall's theory we shall give McDougall's evaluation of Freud's. "Not proven and wildly improbable" (1925, p. 27).

For groups with leaders we have, at least, a theory that does not assume the existence of the mob it pretends to explain. Neither the *loss of responsibility through anonymity* nor the *impression of universality* can operate until the mob is formed. They do not explain the creation of the mob. When Waelder says that in the case of the leaderless mob the mass functions as moral arbiter we are still left with the problem of explaining the creation of the mass

4. *Individual thresholds for mob involvement.* There are many explanations for the recruitment of additional individuals to an existent immoral mob. We may attribute it to simple contagion or to the *loss of responsibility through anonymity,* to the *impression of universality,* or the overthrow of the superego. Very little has been said, however, about the creation of the initial mob.

An experiment of Grosser, Polansky, and Lippitt (1951) on behavioral contagion is enlightening here. They summarize their previous field work as having shown that certain behaviors are imitatively picked up from individuals with high group prestige when there is no serious restraint forbidding these behaviors. When, however, there is a strong need to act and also strong social restraints against acting, certain "impulsive" children without high prestige tended to act first against restraint and triggered the other children into action. This sounds like the situation in the mob, with its preparation for action that is socially disapproved What is this quality of "impulsiveness," then, but individual weakness of the inhibiting social impulses?

In their experiment, Grosser, Polansky, and Lippitt set two children a dull mechanical task and told them to work while the experimenter was out of the room until his return. One of the children was a collaborator. He indulged in various relaxed activities — yawning, stretching, getting up and playing darts. In control groups he did not thus take advantage of the absence of the experimenter When the collaborator misbehaved the naive subject tended to do so also With a well-behaved collaborator the naive subject was also well behaved. The authors explain that the misbehaving collaborator weakens the restraining forces acting on naive subjects. There is less chance of punishment by the experimenter when the collaborator (a potential tattler) is also guilty. There is no need to be restrained in order to win the approval of the collaborator, who evidently approves of mischief. In additional experiments these authors found that when it was unclear whether a particular action was forbidden, the action of collaborators helped to define the behavior as approved.

These restraining forces appear to be the same as those suggested for the members of the mob except that the inhibitions are less profound in the experiment. What is needed, then, to supplement the familiar explanations of mob behavior is the trigger that starts the action. To explain the beginnings of mob action we must look for impulsive individuals who are deficient in the inhibiting forces. Instead of applying a single principle to all members of the mob it will help to look for individual differences. We may suppose that there are varying thresholds for participation in mob action.

There may be *lawless* individuals whose brutal behavior in the mob is not completely discontinuous with their private lives These are people who require only a fancied insult to fight, a slight provocation to lynch. Lynchings and riots are often led by men with criminal records. Impulsiveness in the area of mob action is "criminality." Such individuals are, as Leonard Doob (1952) has suggested, deficient in moral sense and often stupid about calculating legal consequences.

There may be others who readily succumb to

the hypnotic powers of father-surrogates We do not know what such people are like and have usually covered our ignorance by calling them *suggestible* Presumably they are not ordinarily criminals but simply very susceptible to a certain kind of leadership

With the two "impulsive" groups above to trigger mob action the *loss of responsibility through anonymity* will bring in the *cautious* There will be many who are strongly predisposed to criminal action and are only restrained by a fear of punishment. Lynchings have been led by men in direct economic competition with the Negro to be lynched Sometimes these men appear to have had no moral compunction, they waited only for immunity from the law Participants in special interest movements may be working in the service of motives that are selfish but certainly not ego alien — strikers, feminists, or temperance crusaders do not have to stun their consciences to act Individuals of many kinds will be ready to join the mob as soon as the *lawless* elements begin and create a condition of legal immunity.

Finally there will be those who cannot act until a full-fledged mob is in existence. When large enough numbers can be recruited at the lower thresholds to create an *impression of universality* or to permit the mass to supplant the superego, the *yielders* will become involved As F. H. Allport puts it, these individuals will feel "since the whole crowd show by their acts that they wish the deed to be done, it must be right after all So large a number of people could not be in the wrong" (1924, p. 313).

Then there are those *supportive* individuals who cannot be stampeded into action but who do not actively oppose the mob They draw the line at active participation but are not averse to enjoying the show or even shouting encouragement Most of the worst lynchings have had large numbers of middle-class onlookers who indirectly fostered the mob, since their presence contributed to the *impression of universality*. Such individuals are not usually restrained by a strong ethical principle but more often from a feeling that violence in general is not very well bred

Finally there are the *resistant*, whose values are opposed to mob action and who are not unseated by temporary pressures. If these actively oppose the mob they go in danger of their lives Mob members have agreed to forget certain values and those spoil-sports who insist on reminding them are in danger The mob does not tolerate heresy in its midst

Aggressive Mobs — The Lynching

Aggressive behavior is defined by Dollard and others (1939) as behavior which has as its goal response the injury of some person. Myrdal (1944) has distinguished three varieties of mass Negro-white violence — the lynching, riot, and terrorization. These can be extended to include all mob aggression In a lynching a mob illegally attacks some one or very few persons and is not satisfied until it has taken their lives or injured them In a riot two mobs are involved in aggressive action against each other — there is violence on both sides. A terrorization is a lynching in which the victims are many but the violence is all one way In all of these the mob professes some exalted moral motive. This distinguishes them from criminal actions and gang wars.

THE SEMANTICS OF LYNCH

Our definition of lynching as illegal aggression, ostensibly with high moral purpose, of a mob against one or more individuals agrees in all essential points with that drawn up at Tuskegee Institute in 1940 to standardize the compilation of statistics on lynching and also with definitions written for Federal antilynching legislation It is general enough to include the whole history of lynching

There are conflicting etymologies offered for this word. J E. Cutler, in his authoritative *Lynch-law* (1905), accepts as best authenticated its origin in connection with Colonel Charles Lynch, a Revolutionary patriot who organized leading citizens in his region of Virginia to punish Tories who were harrassing the Continental forces and otherwise impeding the cause Since the nearest court was some two hundred miles distant, it had become necessary to institute some local authority Lynch's court was always scrupulous in its effort to act justly and it never invoked the death penalty. In its origins, then, lynch law was relatively mild extralegal justice administered by community leaders to repair the inadequacies of the civil courts.

In our own day the word "lynching" has picked up certain connotations not a part of its original sense. While not everyone understands the word in this way, it usually suggests:

(1) lethal aggression against a Negro,
(2) occurring in the Southern United States,
(3) for the alleged crime of rape committed upon a white woman.

The history of this offense since the days of Judge Lynch is the story of the foundation of these new semantic rules.

(1) *Aggression against a Negro* Lynch law accompanied the advancing American frontier and was directed against any man who committed certain crimes recognized by the rudimentary community. Until 1830 the usual sentences involved whipping, tarring and feathering, or banishment from the community. After that date such serious frontier crimes as horse stealing and cattle rustling were punished by death, usually hanging. As Abolitionist strength grew, lynch law was increasingly used to keep down that sentiment. Until 1890, however, lynching victims were mainly white. With the Reconstruction the lynch became a bloody method for the control of the newly free Negro populations of the South With the passing of the frontier the number of white lynchings dwindled almost to nothing Reliable records date from 1882, when the Chicago Tribune began to publish at the end of each year an itemized summary of disasters and crimes in the United States Since 1911 the National Association for the Advancement of Colored People has compiled statistics, and since 1913 the Department of Records and Research of Tuskegee Institute has done likewise. Table 4, derived from Tuskegee Institute reports (Guzman, 1947, 1952) documents the sharpening focus on Negro victims.

TABLE 4
LYNCHINGS, WHITES AND NEGROES, BY PERIODS, 1882-1951

Period	*Total*	*Whites*	*Negroes*
1882-1889	1,203	669	534
1890-1899	1,540	429	1,111
1900-1909	885	94	791
1910-1919	616	53	563
1920-1929	315	34	281
1930-1939	131	11	120
1940-1949	32	2	30
1950-1951	3	1	2
	4,725	1,293	3,432

(2) *Occurring in the Southern United States.* As we have said, lynchings at first followed the frontier westward. Since the Civil War, however, they have become increasingly peculiar to the Southern states and, in this century, have seldom occurred outside the South.

The practice was by no means uniformly diffused throughout the South. In 1930 twenty-one lynchings occurred They were studied in detail by the Southern Commission on the Study of Lynchings (1931). When the counties in which these lynchings occurred were compared with other counties in the same states they were found to be economically far below average In tax valuation, bank deposits, per capita income, farm and automobile ownership, these counties were strikingly inferior to the general level in their states. In the South the poorer counties had a penchant for lynch law.

Raper (1933), working on the Southern Commission, discovered that between 1900-1930 the lynching rate per 1000 Negroes varied significantly with the white-Negro ratio of dwellers in a county. Thus in Black Belt counties which were at least one-half Negro the rate was 1.64, while in counties with one-fourth Negro inhabitants the rate was 1 71 and in counties with less than one-fourth Negroes it was 2 44

Raper further concluded that lynching was a rural phenomenon A Negro inhabitant of one of the South's more sparsely populated counties was in sixty times as much danger of mob death as a person living in or near one of the South's half dozen largest cities.

Lynching is commonly known to be a Southern offense, but in addition it has, most commonly, been found in poor, rural counties where Negroes are a minority.

(3) *For the alleged crime of rape committed upon a white woman* The previously mentioned connotations of the word "lynch" are well grounded in fact. This one is not. We cannot tell what crimes were actually committed by the persons lynched. The indications are that the victim has often been innocent of the accusation. However, even a table of alleged crimes does not support the popular belief that lynchings are used to punish Negroes for the rape of a white woman In Table 5 (Guzman, 1952) homicide appears as the crime of which

TABLE 5
CAUSES OF LYNCHINGS CLASSIFIED

Causes	*Number*	*Percent*
Homicides	1,937	41 0
Felonious assault	204	4 3
Rape	910	19 2
Attempted rape	288	6.1
Robbery and theft	232	4 9
Insult to white person	84	1 8
All other causes	1,075	22.7
TOTALS	4,730	100.0

lynching victims have most commonly been accused.

THE CAUSES OF LYNCH

"Lynching" has retained its core meaning, but with the accrual of the above connotations we may suppose that the act has greatly changed its social psychological meaning. We shall consider separately the significance of the well-founded connotations and the rape fantasy.

(1) *Why is lynch directed against the Negro in the South?* We shall begin by reviewing possible economic reasons and then turn to such other facets of Southern culture as the ethnic prejudice, the state of the laws, schools, and churches. The first Negro slave was brought into this country in 1619. By 1710 there were 50,000. At the time of the Revolutionary War there were 740,000 and by 1820 a million and a half. The majority of them lived in the South and made possible the plantation system of agriculture. With the coming of the industrial revolution around 1830 the demand for cotton greatly increased. Since this remained a crop largely raised by hand, the demand for slaves was tremendous. Between 1830 and the Civil War lynching was used to subdue Abolitionist sentiments which threatened the economic structure of the South. During this period more whites than Negroes were lynched Walter F. White has suggested in his book *Rope and Faggot* (1929) that this may in part be attributed to the fact that the Negro was private property with a cash value

> There are on record numerous instances where the owners of lynched Negroes sued for and received damages for the loss of their property. (1929, p. 92)

The Civil War wiped out the cash value. White attributes the furious orgy of lynchings and the activities of the Klan during Reconstruction to the desire of Southern whites to re-enslave the Negro, to perpetuate his economic dependence. These motives, White believes, survive to the present day. They were intensified after the two world wars when the returned Negro soldier threatened "to forget his place."

In his analysis of the twenty-one lynchings of 1930, Raper pointed to the relative security of the Negro in Black Belt counties, which were run on the plantation system. Negro tenants and wage hands were practically indispensable.

> Here the variant economic and cultural levels of the mass of whites and the mass of Negroes are well defined and far removed. (1933, p. 27)

In the poor rural counties where Negroes were in a minority lynchings were most common. They were carried out by the lower-class whites. Apparently much of the trouble here was the economic competition of the white and Negro. Raper (1933) reported an analysis made by T. J. Woofter, Jr. for the years 1900-1930 of the relationship between the price of cotton and the number of lynchings The correlation is —.53. A later study of Hovland and Sears (1940) shows a correlation of —.67 for the years 1882-1930. These latter authors interpret their finding as a demonstration of the truth of the frustration-aggression hypothesis. Alexander Mintz (1946) has re-examined the correlations of Hovland and Sears and found fault with their statistical procedure. Mintz's correlations, based on sounder statistical assumptions, are so much lower than those reported by Hovland and Sears as to cast doubt on the reality of the relationship Case studies of individual lynchings clearly demonstrate that motives of economic competition have sometimes operated (Pruden, 1936; Raper, 1933). Not all of the economic motivation is caught by correlations between cotton prices and the number of lynchings. In some cases there are personal business competitions or purely local economic problems that precipitate a lynching.

Cutler (1905) showed that lynchings occurred most often during the summer months, with the high point in July. Davie (1949) attributed this fact to the increased contact between the races at this time of year, making quarrels more probable. R. Steelman (1929), however, has suggested an economic factor here. The summer is a time of tense relationship between tenant and farmer, as the tenant is paid off and finds himself with practically nothing to show for the year's work

The general problem of ethnic prejudice is discussed in Chapter 27 of this volume. The Negro is well qualified to become an object of negative prejudice because of his slave background and his high "visibility." Prejudice can be a rather superficial cognitive habit picked up from cultural tutors and serving no deep needs. It may also be profoundly rooted in an authoritarian (Adorno *et al.*, 1949) character structure that requires a clearly defined outgroup against which aggression may be directed. The Negro is, for millions of Americans, pretty well defined out of the human race. Against him anything may be done.

Lynch law was developed to deal with lawbreakers who were not adequately punished by frontier civil courts. In 1921-22 the homicide rates in Atlanta, Birmingham, Memphis, and New Orleans per 100,000 Negro population

were 103.2, 97 2, 116 9, and 46.7 respectively, while the corresponding rates for the white population were 15 0, 28.0, 29.6, and 8.4 (Southern Commission on the Study of Lynching, 1931). In recent years the Negro homicide rate has continued high. Between 1940 and 1950, for instance, there were more Negroes than whites executed by civil authorities (United States Department of Commerce, 1952). These latter are absolute numbers, not rates. Civil execution is chiefly for rape or murder. In 1948 there was a greatly disproportionate number of Negroes accused of felony. Needless to say, these high rates for certain kinds of crimes do not apply to all elements of the Negro population and, where they do apply, are probably to be attributed to various kinds of underprivilege.

Whatever the reason, it appears that Negroes do commit crimes with a frequency that is disproportionate to their representation in the total population Only detected crimes can appear in statistics Consequently what we really know is that large numbers of Negroes are tried for crimes. It is possible that those statistics do not reveal the true relative frequencies with which crimes are committed by whites and Negroes. They would be misleading if either whites or Negroes were favored by the police. Every authority would probably agree that if there is any favoritism here it is likely to operate against the Negro Suppose, however, we accept the comparative statistics and conclude that the Negro is exceptionally criminal in our society. Lynch law was originated to punish criminals who were not reached by civil machinery Garfinkel (1949) has shown that Negro violence against a white man is more severely punished by the courts than a white man's violence against a Negro. As Davie (1949) says, there is no problem of excessive leniency of the courts, the lack of certainty of justice, or of the law's delay, especially so far as Negroes are concerned.

Cutler (1905) suspected that lynching is the American national crime because of our peculiar attitude toward the law. Here there is not the same support of long practice and ancient tradition as in Europe. Where the people make the laws they can also unmake them. In small rural communities, especially, a man's only contact with civil officials will involve neighbors whom he has elected to office. There is likely to be, under these circumstances, a feeling that the people are above the law.

Davie (1949) sees a particular inclination in the South to personally avenge grievances rather than take them to court. The South stands first in number of persons transporting concealed weapons and also in homicide rate Brearley (1934) has shown that these homicides are not those committed by the insane or those incidental to burglary, but are usually committed to preserve the status of the slayer, to maintain his prestige or that of his group Here are included honor slayings and family affairs as well as, perhaps, lynchings.

Southern states, on the whole, spend less per child for education than other states. The literacy rate even of the native whites in the South is lower than for other parts of the country. The South is also the backbone of fundamentalist, antiscientific religion. Cantril (1941) found that regions of low economic status in the South tend to be high in the number of Baptists and Methodists and also high in illiteracy. These are the regions where lynchings are most likely to occur. The fundamentalist religions of the poverty-stricken rural communities often forbid card playing, dancing, and theater attendance. It is a hard, dull life. There may, consequently, be something to H. L Mencken's quip that "lynching often takes the place of the merry-go-round, the theater, the symphony, and other diversions common to larger communities" (1924).

(2) *Why the accusation of rape?* As we have already seen, the major alleged crime for which lynching is performed is not rape but homicide. Still the number of accusations of rape is very considerable. In a novel written in the 1920's Walter White opined, through one of his characters, that not once in all the lynchings where rape or attempted rape was alleged had such a crime actually occurred. While this is probably too extreme a statement, it is certainly true that in the majority of the lynchings for which case reports have been made and in which the charge of rape was made, there exists reasonable doubt as to the truth of the charge and, in some cases, fairly convincing evidence of its falsity. Of the twenty-one lynchings of 1930 there was doubt as to the guilt of the victim in more than half the cases. Myrdal (1944) reminds us that the Southern definition of rape is so broad as to include all sexual relations between Negro men and white women. We don't know how often the rape charge is actually true because, of course, the white woman accuses and the Negro denies. The Southern presumption, generally, is that the white woman tells the truth. Even in cases where the woman is suspected of lying, or is of distinctly unsavory reputation, there is a feeling that, although she may not have been raped, the accusation justifies the lynching.

Perhaps the charge of rape is made in order

to conceal the white man's conscious but disreputable motives. John Dollard reports in *Caste and Class in a Southern Town* (1937) a case in which a Negro was brutally whipped for the alleged "crime" of winking at a white woman The husband of the woman led the mob in its defense of her virtue. He was a cabinetmaker, as was the Negro victim The Negro's business had recently done very well, while the white man's had declined. It is difficult not to suspect that the unverifiable sexual charge may have provided a useful disguise for the desire to eliminate a business rival. Raper reports of another case that

> . . . opinion was expressed in Scooba, Mississippi, that the two Negroes lynched there, on accusations of robbery, may have been the victims of an artful scheme on the part of their accusers to get money from the community to continue an interrupted motor trip. (1933, p. 35)

In Leeville, Texas, where a notorious lynching and terrorization occurred, the poor whites were in competition with the Negroes for the very meagre living available The slogan of the destructive mob became, "run all the niggers out of Leeville." An employer was warned to discharge all of his Negro help or suffer the consequences. In all of these instances the actions of the mob served to further economic goals of the individuals taking part. These do not seem to be goals that would ordinarily be repressed. We do not know how much self-deception operated in the mob members and how much of their verbal behavior — their accusations of rape — was simply for the benefit of the community. In some instances, no doubt, they believed themselves to be crusading for the sanctity of white womanhood. In other instances there may have been conscious rascality.

It is possible also that the rape accusation serves to disguise unconscious motives. If we believe that man must constantly work to control an intense innate aggressive urge then it follows that he will murder whenever he can do so with legal immunity and superego approval. Since rape is a heinous crime and difficult to prove, such an accusation against a Negro serves admirably to smuggle aggression past the censorial authorities, external and internal. If, like McDougall (1925), we reject the Freudian Thanatos, we are still bound to recognize strong aggressive components in human behavior that, even if not part of our standard hereditary equipment, are certainly ubiquitous from an early age. Perhaps the frustration of Southern rural life produces aggression which is displaced from more legitimate objects to the Negro, who is accessible because of his second-class citizenship.

Freud has taught us to look for a repressed sex activity behind sadistic behavior. In 1903 Cutler had the impression that, as the practice of lynching continued, the punishments tended to increase in severity and the victims were tortured more before death As lynching became focused on the Negro in the Reconstruction period it took on a horror that it had not shown in frontier days — a horror it has retained ever since. Of this aspect of lynching A. A. Brill said, "The torture which is an accompaniment of modern lynching shows that it is an act of perversion." (As quoted from White, 1929, p. 61.) John Steinbeck, in his short story *The Vigilante*, tells of a man coming home from a lynching to face his wife "Then her eyes widened and hung on his face. 'You been with a woman,' she said hoarsely 'What woman you been with?'" (1938, p. 141). The story ends with the lyncher concluding that she was right, that's how he did feel.

The white man and woman may be as emotional in their repudiation of sexual interest in the Negro as they are in their denial of incestuous desires. Walter White (1929) and others feel that the miscegenation tabu has much the same significance as the incest tabu. From the earliest history of this country laws were passed against the intermarriage of a white woman and a Negro. Many of these went so far as to prohibit casual contact or even sitting together. There is, in the severity of these prohibitions, a suggestion of something powerful to be controlled.

Walter White reports that his close study of lynchings reveals that rape accusations chiefly derive from

> . . . young girls ranging from 12 or 13 to 19 or 20 years of age, passing through the difficult period of adolescence, second (and this includes a considerable percentage of the alleged victims of attacks), women who range in age from the middle forties upward, third, women who have been married for many years and usually to rather unattractive husbands; fourth, spinsters. (1929, p. 58)

It is clearly the author's implication that these women have in common some basis for sexual dissatisfaction and that one may, therefore, suspect them of delusions or of unconscious provocation. John Dollard said,

> In relation to this idea I cannot refrain from guessing that the accusations of the Negro man by the white woman may often times be a denial of her own excitation directed toward the Negro. (1937, p. 333)

These unchivalrous innuendoes are supported by the fact that there are many authentic cases in which Southern white women have accepted Negro men as lovers

The laws forbidding intermarriage have generally not compelled the white plantation owner to respect the person of his female slaves It is well documented that the masters often bred themselves a larger slave population by the women they owned. It was sometimes recommended to young white men that they take Negro mistresses and preserve the purity of white womanhood. Southern white men still frequently make casual use of the Negro woman

The white man who indulges himself with Negro women may suffer from several fears. There is the possibility that his women may be similarly unfaithful or, if not, that they may have such vagrant impulses which are with difficulty controlled. As Myrdal (1944) and others have pointed out, the Southerner may suffer from the common presumption of Negro sexual superiority He must at all costs deny the possibility of his wife and, by extension, any respectable white woman, being interested in a Negro man. When there is rumor of contact between races it must imply rape and the Negro must be punished for it.

The philandering white man may also feel guilt for his behavior and displace the guilt to the Negro woman The Southern sneer that there is no such thing as a virtuous Negro girl over fourteen may reflect projected guilt. Freud and Wilhelm Reich (1946) have described the man who, because of repressive sexual training, may conceive of two kinds of women: the fallen creature who is a legitimate sexual object and the good woman who, like his mother, must be spared sexual advances. In this Split Image the Negro woman — the Negro race — is likely to be equated with sexuality. There are ancient symbolic linkages which make this probable. Like sin, the Negro is black In the poor white Southern community where fundamentalist religion rules there is the possibility of great sexual guilt and in the Negro a tempting object for the displacement of guilt.

LYNCHING AND THE GENERAL PRINCIPLES OF MOB BEHAVIOR

We shall be helped here by a preliminary characterization of two kinds of lynching. Raper (1933) and Cantril (1941) distinguished the "Bourbon" lynching from the "proletariat" lynching. Myrdal (1944) recognized similar categories under the names "mob" lynching and "vigilante" lynching.

The Bourbon lynching The lynchings of the Black Belt counties are said by Cantril (1941) to differ from the "proletariat lynching" in that (1) thev are often engineered by leading citizens with the knowledge of law-enforcement officers, (2) the object is to punish a specific crime and other Negroes are protected, (3) the mob is smaller and does not get out of hand, (4) the fundamental motive is to maintain white supremacy These generalizations are derived from Raper's (1933) study of the 21 lynchings of 1930.

The Bourbon lynching appears to be a more legitimate heir of Judge Lynch than the proletariat variety. Like early lynch law, it is administered by community leaders in good conscience. There is some concern with getting the guilty man, although nothing like the moral scruple of the Quaker Judge. Unlike the lynch law of Revolutionary days, however, the modern Bourbon lynching is not a substitute for inadequate law enforcement The accused Negro in the Black Belt counties could be punished lawfully but there is, apparently, a feeling that the lesson is clearer if he is immediately lynched.

It seems likely that those who mete out Bourbon justice in Black Belt counties are enduringly identified with one another as the respectable white minority. They congregate intentionally and their action is planned and organized The action is technically illegal and so must be executed in force. In one case Raper (1933) reports that about 70 were present in a particular crowd. They wanted 100, some seeming to have the idea that if as many as a hundred participated the lynching would be legal. Although individuals may be motivated by perverse sadistic impulses, the mob is kept in hand perhaps because of the enduring identification, the rudimentary organization, and the partial nonanonymity of the persons involved.

Is there any moral conflict involved in a Bourbon lynching? Waelder makes an interesting distinction between

> . . . groups whose behavior does not differ from the behavior of the individuals which they contain and those in which group behavior differs from individual behavior. (1939, p. 14)

The first kind of group he calls the "association" and the second the "mass." In the association the conscience is homogeneous, while in the mass there is an unresolved contradiction in the mind. Members of masses may feel shame after they leave the collectivity. Any lynch mob would have to be a mass in Waelder's terms, because he holds that murderous deeds are always forbidden by the conscience — that there

are certain universal moral standards. However, there are reasons to suspect that the Bourbon mob has a homogeneous conscience The immediate community — the newspapers and civil officials — stand behind the lynchers Comments after the event do not suggest that the Bourbon lyncher suffers any severe moral hangover. Still, it is difficult to believe that the Bourbon conscience is perfectly homogeneous on this point. Men raised on Scripture will surely feel some guilt over taking the life of a human being It may be that there is conflict in the mind of the Bourbon lyncher but that it is not of the usual order involved in mob action

McDougall wrote

> But for the weakening of the individual sense of responsibility, juries would seldom be found capable of finding a prisoner guilty of murder and so condemning him to death. (1920, p 43)

We usually think of mobs as accomplishing deeds that are disapproved by the larger community. McDougall suggested that some collectivities may carry out actions that the community supports but which no man alone would be able to achieve There is a division in the conscience but the behavior released in the collectivity is approved by powerful social institutions The member of the criminal jury who condemns an obviously guilty man to death cannot help feeling uneasy about his decision There is a morality that says, "This man could not help himself. You could be he. Why do you withhold mercy? Who will suffer if he does not die?" On a less intense level the member of the graduate committee who has voted to deny the degree to a candidate will suffer from the *ad hominem* arguments to which the academic mind is so susceptible But the juror is congratulated by the judge and the press and he finds surcease in their reassurance. The academic is sternly assured by his colleagues that he has done his duty. It is possible that whatever division of mind occurs in Bourbon lynchings is of this kind. The mob action is approved by dominant forces in the community and any qualms of conscience are quickly set to rest.

The proletariat lynching. The characteristics of the proletariat lynching, according to Cantril (1941), are (1) it occurs in areas where Negroes are in the minority, (2) it is led by the poorer, less established classes, (3) there is little interest in proving the guilt of the victim or even in getting the right man, (4) the object is to persecute the race rather than the individual, as evidenced by a tendency to include mass terrorization and destruction. Raper reports of proletariat lynchings that those ". . . in Texas were characterized by tremendous mobs which dragged and burned their victims" (1933, p. 44)

Probably the members of such mobs have no enduring identifications with the collectivity. Their congregation is often less well planned, unorganized, not even intentional for many. There is considerable anonymity in mobs of this size There is generally a long milling period during which the crowd works itself into an actively aggressive mob.

Apparently mobs of this type are set into action by *lawless* individuals Durward Pruden (1936) found in his investigation of the Leeville, Texas, lynching and terrorization that eleven of the participants had police records The acknowledged leader was known to the police as a "rough and ready bully," a bootlegger, and a drunk, who was principally supported by his wife He was killed in a drunken brawl two years after the lynching These are the impulsive "triggers" who are not restrained by law or conscience.

The participants at Leeville were generally poor whites in economic competition with the Negro For this large group of *cautious* individuals only legal immunity was needed to precipitate action The importance of this mechanism is beautifully illustrated here, as the aggression was sparked by a rumor that the governor had given orders to the assembled state troopers not to fire on the crowd in order to save the Negro.

The atrocities committed in mob lynchings are usually condemned by responsible forces in the community There must surely be some who feel guilt after burning a man alive. Presumably the *impression of universality* operates to suspend some part of the conscience for the *yielders* in the mob.

Pruden reports of the Leeville mob that while the active crowd was made up of lower-class whites, there were many middle-class whites in attendance and even giving encouragement. These are the *supportive,* who draw the line at active participation.

In Leeville and other mob lynchings there were peace officers, firemen, and state troopers who actually opposed the mob even to battle. Their organized preparation rendered them more or less immune to mob suggestion. Upper-class whites in Leeville were also among the *resistant* who did not take part in the mob and expressed disapproval of it.

THE STATE OF THE SOUTHERN CONSCIENCE REGARDING LYNCHINGS

Chadbourne (1933) reported that eight-tenths of 1% of the lynchings in the United States since 1900 were followed by conviction of the lynchers Since that time there have been indictments of lynchers and some convictions, but it is not usual for lynchers to be punished even when they are brought to trial, because of the difficulty involved in getting citizens to give adverse testimony Still, there have been a few cases (in Georgia, North Carolina, Virginia, and Texas) where lynchers have been convicted in state or local courts and fined or given prison sentences The biggest lynching trial in the history of the South took place in Greenville, South Carolina, in 1947 when 31 white men were charged with lynching a Negro Although they were acquitted, the governor, prosecutor, sheriff, and judge did their utmost to bring the slayers to justice, and they had the support of the local press. In recent years Federal Courts have been more active wherever the case came within their jurisdiction Until 1947 there had been six Federal indictments against lynchers, two of which resulted in convictions In recent decades, then, the legal danger to lynchers has increased, thereby strengthening inhibitions in potential lynchers

In 1930 the Southern Commission on the Study of Lynching reported:

> The daily papers of the large Southern cities almost always denounced a lynching whether near at hand or far away. In some cases, however, the nearer at hand the less vigorous the denunciation The county weeklies and dailies of the smaller cities throughout the South were inclined to condemn lynching in general but often justified it in particular instances. (1931, p 59)

In 1933 Raper wrote:

> . not infrequently the local church leaves unchallenged the general presumption that the Negro is innately inferior and of little importance. (1933, p 22)

Since 1930 both press and church have become more consistently opposed to lynching.

Numerous organizations that oppose lynching have developed in the South since 1930. The Association of Southern Women for the Prevention of Lynching was established in 1930. It has been influential in obtaining antilynching pledges and in putting some pressure on peace officers. The Southern Regional Council (established in 1944 as successor to the Commission on Interracial Cooperation) has also actively opposed lynching In recent decades, then, public opinion in the South has increasingly turned against lynching. With present-day newspapers, churches, and civic leadership the lyncher is practically guaranteed a guilty conscience

Meier, Mennenga, and Stoltz (1941) carried out an elaborate experiment intended to approximate mob excitement A brutal kidnapping was realistically reported to students as a set of news dispatches said to have been received just that moment from a local newspaper office The dispatches reported a mob of 3000 persons to be storming the local jail Subjects were then asked to report what course of action they were prepared to take and to give a good deal of additional information about themselves The experimenters hoped to record at the height of excitement the reactions and motivating context of the subjects There may be doubts as to whether this paradigm preserves the essential features of actual mob situations However, some confidence in the method derives from several parallels between the experimental findings and conclusions drawn by Raper (1933) from his study of many race riots Raper said that, of the known active lynchers, only one man was known to have a technical or college education and he had recently been released from the State Insane Asylum Few lynchers had had even a high school education Half of them were not identified with any church and many others were inactive. In comparing would-be mob members with those who would not join a mob, Meier, Mennenga, and Stoltz showed that the former group were inferior in intelligence and education and were less likely to be church members than the latter group.

These results suggest that active mob members are likely to be people who are not reached by those social forces that condemn lynching. The middle class, even in 1930, was kept on the sidelines by these forces. The upper class was kept at home. Since 1930 the conscience of the Southerner has been strengthened by increasing legal threat and stern public opinion. As the forces inhibiting lynch action have grown stronger the forces motivating the action have declined through improvements in the economy of the South and increased educational facilities The prejudice is still there and everywhere in the United States. There is still continual aggressive action but its grosser forms have declined.

Aggressive Mobs — The Riot

Terrorization has been defined as a mass lynching in which a mob aggresses against large numbers of a submissive group. Proletariat lynchings tend to end as terrorizations In a riot there are contending aggressive mobs It is not always clear into which category a particular disturbance falls. In the South, especially, terrorizations have often been described by newspapers as race riots. In our time the riot, like the lynching, has acquired a racial focus — chiefly Negro-white violence in America and most recently in South Africa Europe has known centuries of anti-Jewish terrorization and riot — with some of the most horrible a part of modern history.

The race riot is an urban phenomenon, as lynching is rural It is practically a prerequisite that there exist a large, compact minority population if resistance is to be made Such populations exist only in cities. They occur in the North as well as the South and race riots, likewise, are at least as common in the North as the South In the race riot aggression is "universalistic" — directed against a collectivity, not a person Individuals are attacked for their race membership quite independently of such other attributes as age and sex. In race riots elderly people, small children, soldiers, and cripples have all been attacked. These individuals all enjoy collectivity memberships which ordinarily guarantee consideration and immunity from aggression But, in the race riot, the racial membership is prepotent above all others in affecting social behavior.

After the first World War there were numerous mob outbreaks (both riots and terrorizations) against Negroes; in Harrison, Mississippi, in 1918, in Knoxville, Tennessee, Longview, Texas, Norfolk, Virginia, Washington, D. C, and Charleston, South Carolina, in 1919; in Lexington, Kentucky, and Ocoll, Florida, in 1920 Major race riots in the North have occurred in Springfield, Illinois, in 1908; in East St Louis, Illinois, in 1917; in Chicago, Illinois, Oneida, Nebraska, and Philadelphia, Pennsylvania, in 1919; in Carteret, New Jersey, in 1926 There was a decline between wars but an upswing again with the second World War. Riots occurred in Detroit in 1943 and in Los Angeles, Detroit, Philadelphia, and New York City in 1943. The tendency of riots to cluster around the world wars suggests that their principal cause may be the impulse of the Negro to better his position in our society and the determination of some whites to put down any such attempt.

General principles of mob behavior and the Detroit race riot of 1943

The Detroit riot was the worst in recent years It was unquestionably a riot — there was violence on both sides Lee and Humphrey of Wayne University in Detroit have written an excellent study of the case in their little book *Race Riot* (1943) Riot, like lynching, requires prepared attitudes and motives We shall begin by examining some of the probable preparatory factors in whites and Negroes

Preparation for a Negro mob In 1940 there were about 160,000 Negroes in Detroit. In 1943 there were 222,000. Large numbers migrated from the South, bringing with them a tradition of Negro-white antagonism. Many of these people earned the best wages of their lives in Detroit but they were nearly all crowded into the city's Negro ghettos — the Paradise Valley section This is a substandard, overcrowded, high rental area near the center of the city. Negroes were prevented from finding better housing by restrictive practices. Recreational facilities open to them were extremely limited and unsatisfactory

Negro resentment was probably deepened by certain segregation practices which arose nationally during the war The Red Cross, for instance, separated white blood from Negro Jim Crow transportation facilities were fairly common in the army Negroes in the Navy were almost entirely limited to messboy ratings. The Air Force was practically closed to the Negro There were racial clashes in a number of Army camps Many of these resentments were probably given aggressive focus by Negro publications and, perhaps, by a meeting of the National Association for the Advancement of Colored People that was held in Detroit shortly before the riot.

Preparation for a white mob. In the three years 1940-1943, Detroit added some 490,000 whites to its population. Many of them came from the South — refugees from a sharecropper system of peonage. They brought with them a set of ideas concerning the proper treatment of Negroes, ideas bred in a land of stunted opportunities where the Negro had been an economic competitor. These Southern whites were greatly irritated by the necessity of coming in close contact with the Negro at work, in vehicles of public transportation, and in public facilities of all kinds.

Inflaming prejudices in Detroit were a number of demagogues, including Father Charles

Coughlin, Gerald L. K. Smith, and the Rev. Frank J. Norris. Detroit was unique in the North in having its own unit of the KKK and was, of course, a center of operations for the Black Legion. But Detroit was not all tent tabernacles and mass hatreds. There were also the "people" of Detroit. In the majority of the whites there were strong forces inhibiting attack on the Negroes and in many cases no strong anti-Negro feelings to be inhibited. In 1943 the first few Negro families "infiltrated" the residential area of Detroit, in which the present writer then lived. At the local high school there was a student organization called the Forum in which the discussion of current affairs, of political and social issues, was centered. This group planned to hold a meeting which they advertised under the title "Negroes as Neighbors?" Their answer to the question of the title was "yes" They intended to suggest to their membership that this community distinguish itself by welcoming these new families They conjured up the vision of a social group acting in accordance with the democratic-Christian ethic it professed

A small gathering of earnest students and teachers was anticipated but, on the day of the meeting, the surrounding community streamed toward the high school. Hundreds of "prepared" citizens had interpreted the title as an invitation to mass protest Threatened with invading interlopers, they were prepared to resist.

The audience was treated to a series of improving lectures by stuffy young people, lectures on an exalted level of abstract morality The listeners were unquestionably irritated The discussion was excited But they remained an audience — whether the school, the moral symbols, the nonanonymity, or the absence of a proper object for aggression was chiefly responsible— they were an audience, not a mob.

Several months later the riots began. The exact nature of the precipitating incident is not known. It occurred on a humid Sunday evening — June 20, 1943 — on the bridge leading to Belle Isle, a large recreational area in the Detroit River. The newspapers reported a fight between a Negro and a white man. There were frequent popular rumors that a Negro baby was thrown from the bridge by white hoodlums. The same rumor was popular in other quarters, with the racial roles reversed. The fighting spread from the bridge to a nearby park and into the city itself. In a very short time 5000 persons were estimated to have become involved. All police precincts sent reserves to the scene. Looting and destruction broke out in Paradise Valley On Monday white mobs hunted Negroes, turning the downtown area into a battleground By midnight Monday the governor had finally taken the necessary steps to obtain Federal troops and the soldiers established a truce Thirty-four persons had been killed (25 Negroes, 9 whites), hundreds were hurt, and there had been thousands of dollars worth of property damage.

The Detroit race riot was made up of many mobs temporally and spatially separated. The initial flare-up occurred in a crowd of people who were seeking recreation and who, incidentally and we may be sure irritatingly, found themselves in congregation Whatever the precipitating incident may have been its attention value was enough to create a *temporary* polarization. This polarization could build upon enduring racial identifications Organized teen-age groups joined the riot, intentionally congregating to attack Negroes or whites.

There were great individual differences among the rioters. Police identified many participants as members of gangs with police records. Akers and Fox (1944) compared the 113 rioters sent to Southern Michigan State Prison with a control group of nonrioting prisoners who arrived about the same time, from Detroit, and with the same racial breakdown (105 Negroes and 8 whites). They found that 74% of the rioters had police records and that the rioters generally were more often from Southern states and had lower I Q's than the control group. On the other hand, Dr. C J. Ramsey of the Michigan Children's Institute (Lee and Humphrey, 1943), in his report to the governor, found that of 310 Negroes and 30 whites arrested in connection with the riots 74% were not recent immigrants, nearly 40% had high school backgrounds, only 25% could be classified as illiterate. These data support the opinion of many observers that many people took part in the riots because the power of the mob attraction proved too much for them. It was not exclusively the work of criminal elements.

There was no shortage of the *lawless* element in the Detroit riot. Members of the Klan, the Black Legion, embittered poor whites from the South, criminal gangs all helped to trigger the action. As the number grew and as the anti-Negro sentiments of the police became clear, those *cautious* individuals who refrained only from fear of punishment would be led to join. Of these there were certainly a great many in Detroit's enormous wartime population. They could easily bring the mob to proportions where the *impression of universality* could operate to bring in the *yielders* who had no serious griev-

ances against the Negro but could not hang on to their standards in a city gone mad. In many of these cases the motives for the aggression were probably unconscious One young hoodlum testified as follows.

> Aldo drove past him and then said, "Gimme that gun." I handed it over to him and he turned around and came back. We were about 15 feet from the man when Aldo pulled up, almost stopped, and shot The man fell and we blew We didn't know him. He wasn't bothering us. But other people were fighting and killing and we felt like it too (Lee and Humphrey, 1943, p 38)

There were those in the riot who kept their consciences. Raymond D. Hatcher, Group Work Secretary of the Detroit Urban League, said

> There were numerous reports of whites going to the assistance of Negroes who found themselves at the mercy of white rioters, and likewise there were numerous reports of Negroes going to the aid of whites who found themselves at the mercy of Negro rioters (Lee and Humphrey, 1943, p. 40)

Dahlke (1952) has compared the Detroit race riot with the Kishinew anti-Semitic riot which took place in 1903 in Russia. Dahlke concluded from his study of the factors common to these two race riots, widely separated in locale and time, that the predisposition to race riot could be described under six heads

(1) Historical context. A tradition of violence against a subordinate group prepares the way

(2) Role of the subgroup They will be struggling to improve their position, to end segregation.

(3) Law. The subordinate group will have a second- or third-class citizenship and there will be well-grounded antagonism between law enforcers and the minority.

(4) Role of associations There will be one or more associations devoted to the defamation of the minority and the advocation of violence against them.

(5) Role of the press and mass media. The minority will have little access to these and will be unfairly reported by them.

(6) Personnel. The upper class will be onlookers or inciters, with the younger people and lower classes as rioters.

GENERAL PRINCIPLES OF MOB BEHAVIOR AND THE HARLEM RACE RIOT

It is interesting to compare the Harlem riot of 1943 with the Detroit violence in terms of Dahlke's six characteristics. Aroused by a "sharpened" rumor of an altercation between a Negro soldier and a white policeman, the riots brought death to 5, injury to 307, and resulted in enormous property destruction. They were, however, more speedily quelled, with less general involvement and far less personal injury than the Detroit riots. Probably the chief factor operating to make this riot less serious than the Detroit case was the fact that as many Negro police as possible were used to deal with the Negro rioters and the white police that did take part treated the Negroes fairly There was not the antagonism between law and minority found in Detroit. In New York, too, there were no racist associations comparable to those operating in Detroit and there was a less extreme tradition of intolerance. On all these counts the Harlem situation was less serious than that in Detroit Still the Harlem Negro was striving to improve his position and some whites were resisting him There was a definite criminal element in Harlem ready to take advantage of a riotous situation. Clark and Barker (1945) have published protocols of an extensive testimony by a young Negro zootsuiter who took part in the riots The authors conclude:

> There is a complete lack of manifest guilt feelings in reference to his own participation in antisocial acts A complete lack of manifest sympathy, sorrow, or other human feelings in reporting acts of brutality inflicted upon another or even upon himself (1945, p 147)

This is our *lawless* spark to mob action appearing in purest form. There seems to have been no moral compunction and little fear of the law.

However, the criminal element is not the whole story of the Harlem riots. Clark (1944) had Negroes interview 67 Negro residents of the Harlem area within a month after the riots. They were asked whether they condoned or disapproved the riots. Clark obtained results which contrast interestingly with Raper's (1933) findings concerning active lynchers in 1930 As compared with those who disapproved the Harlem riots the condoners tended to be older, to have a higher stated educational level, and to be more regular churchgoers. For white lynchers these findings were the other way around. In the Harlem case, presumably, the more mature, better-educated segment of the population approved the riot because their education had put them in touch with Negro middle-class values favoring aggressive pursuit of equal rights. This interpretation is supported by Clark's finding that condoners of the riot were more often readers of Negro newspapers and

of *PM*. Aggressive mob action on the part of the suppressed group has a different significance and is carried on by a different segment of the group than is the case for the aggressions of the dominant group. Perhaps education is not inevitably a deterrent to mob action. It may depend on the values implicitly or explicitly taught A little more education among Southern whites means contact with big city newspapers, with the North, with forces disapproving lynching or rioting. In Harlem it means becoming conscious of Negro rights.

In spite of the evident plausibility of this view there are two demurrals to be entered which leave open the possibility that bookish or thoughtful habits necessarily reduce one's capacity for bloody riot In the first place, Clark's data do not report actual participation in riots but verbal approval of them When the condoners were asked if they did or would have participated only 25% said yes. And even this is still only their report of action or willingness to act; it is not direct knowledge of action Conceivably the better-educated people approved of riot in the abstract but would not themselves actually have participated. A second possibility is suggested by a quotation from Edward Ross:

> Up to a certain point education fosters mob mind by opening the mind to novel ideas before the critical faculty has been strengthened (1908, p. 84)

Perhaps the Harlem population interviewed by Clark had been awakened to new aspirations but lacked a strong "critical faculty."

Dahlke's (1952) description of general factors conducive to riot suggests the fundamental changes that will reduce riot potential If we accept the theory of the authoritarian personality (Adorno, *et al.*, 1949) the requisite changes are profound indeed National ideologies, cherished values, and family relations must be altered Lee and Humphrey (1943) suggest certain practical steps that may be taken within the community to reduce riot potential. They caution civic authorities to watch for manifestations of all the factors Dahlke mentions — efforts of the subordinate group to advance itself, antagonism between the police and the minority, the growth of associations defaming the minority, etc In addition they point to such specific danger signals as an increase in the speed of transmission and the violent character of race rumors, a rise in juvenile delinquency, and increased tension in labor relations. Lee and Humphrey recommend the establishment of an official biracial commission appointed by the governor or mayor and, in addition, a civic biracial committee sponsored by leading civic, labor, religious, business, and educational bodies Through these two agencies action is to be taken to prevent riot.

When riot is not prevented there are a few recommendations that can be made as to the proper methods of control (Chicago Park District, 1947, Lee and Humphrey, 1943). Lee and Humphrey suggest that the riot area be quarantined, that children (especially in high schools) be kept in school, that accurate reports and constructive official statements be disseminated through the mass media and at churches, union, and civic meetings. Comparison of the Detroit and Harlem riots suggests that members of the minority group be used to police the minority rioters and, where this is not possible, that the police be trained to avoid any bias or even the mention of race or religious membership when quelling riot. Lee and Humphrey recommend that the state militia or United States Army be called in rather than rely on the police. The Army was notably successful in quelling the Detroit riots when the police had failed. The pamphlet *Riot Control* (1942) by Colonel Wood indicates why this may have been so Detailed procedures are mapped out for meeting every contingency. It is clear that the soldier is expected to obey orders from his senior — not take sides with one or another mob There is a division of labor, a level of organization, a sense of identification in the Army which makes it insusceptible to mobmindedness

"Escape" Mobs — The Panic

Aggressive and acquisitive mobs are generally centripetal in tendency. The panic is centrifugal. It is escape or avoidance behavior. But orderly escape is not panic. Panic is emotional and irrational. The escape behavior of the fear-driven mob must either be maladaptive from the point of view of the individual or, if personally adaptive, the behavior must ruthlessly sacrifice the interests of others who also seek to escape.

People do not congregate for purposes of panic. They travel on ocean liners or attend the theater or visit a night club to find recreation and, sometimes, they incidentally find panic. This occurs, according to LaPiere (1938), when there is a perceived crisis, any unantici-

pated danger situation, for which there is no prepared and regimental behavior Perceived crises are not always real crises. Eclipses of the sun were once crises and excited panic behavior but eclipses have lost their terror for us since they have become predictable and are known to have very tame consequences Not every potentially dangerous situation is a crisis. The onset of winter could be dangerous if we did not prepare for it. The reliability of the seasons prevents any sense of crisis Both unpredictable and dangerous are earthquake, flood, fire, and storm

While every writer on panic agrees on the importance of perceived danger as a causative factor they do not all list surprise as essential to a feeling of crisis Le Meillour (1920) and Munson (1921) agree with LaPiere concerning the importance of unpredictability or surprise, while Cygielstrejch (1916) and Brousseau (1920), among others, attach little significance to this factor. Studies of the effects of bombing on civilian populations during the second world war (Janis, 1951) indicate that successive air raids with variable intervals between them had a more disturbing effect than raids spaced at regular intervals. The predictable raid was less likely to cause panic. However, predictability always means preparation It may not be the surprise of unanticipated danger that causes panic but the lack of rehearsed response

LaPiere (1938) describes a psychological sequence occurring in panics.

(1) Shock. When the ship lists or the flames flash out there is a moment of suspended activity during which, presumably, individuals are defining the situation as one of crisis.

(2) Sense of panic. When the dangerous occurrence is comprehended there will be a state of panic or terror. This has no necessary overt outcome It may result in maladaptive behavior or it may produce appropriate behavior if regimented responses have been prepared or there is successful antipanic leadership

(3) Following the sense of shock each individual is fumbling for some mode of adjustment to the danger. Someone may shout fire or run screaming for an exit or mount the life rail to leap overboard. If one of these actions has attention value the performing individual may become a leader in the sense of a model to be mimicked LaPiere suggested that in a panic state it is only necessary to capture attention to induce mimicry.

Practically every writer on panic uses at least one principle of contagion. Imitation, mimicry, suggestion, these are the familiar standbys invoked by Coste (1929), Percin (1914), Maxwell (1923), and Munson (1921) French's (1944) study of organized and unorganized small groups, in which fear was experimentally created, revealed a tendency towards mental homogeneity. The variability in emotional state was greater between groups than within groups The homogeneity of the escape mob assumes many forms. In some cases the result is individual suicide, as when people aboard ship leap overboard In other cases it is a collective suicide, as when people stampede for an exit and pile up against the door. This was the principal horror in the famous Coconut Grove Fire (Veltford and Lee, 1943). At other times — one recalls the Titanic disaster — the result may be self-sacrifice, which can result in collective suicide In marine disasters women and children may be loaded into boats with no one strong enough to man the oars, while the men go down with the ship. A fourth possibility is a pattern of mutual aid in which people bind up one another's wounds without regard for their own serious injuries Behavior of this kind is reported to have occurred in Hiroshima and Nagasaki after atomic bombing (Janis, 1951) All of these reactions are "irrational" in the sense of not being personally adaptive or of being maladaptive from the point of view of the collectivity as a whole.

LaPiere's (1938) analysis of panic is concerned with unorganized collectivities that congregate temporarily or irregularly With no permanent recognized leader they have also no *enduring* identification Unless someone is able to assume antipanic leadership in time the mob will follow whatever example it is set. This theory explains the homogeneity of the panic mob with a simple contagion principle LaPiere lists a considerable variety of behavior trends that the mob in panic may show The outcome becomes entirely a matter of the mimicry leadership that establishes itself. In the moment of crisis that response which has maximum attention value will diffuse through the mob Such a theory will not be surprised by anything that may occur in the future simply because it has no clear anticipations of that future.

PANIC IN AN ORGANIZED COLLECTIVITY — THE ARMY

Most writers on panic have not distinguished between unorganized collectivities such as LaPiere describes and organized collectivities like the Army It is, however, an important distinction. LaPiere attributes panic in unorganized collectivities to the perception of

unexpected danger for which no regimental behavior has been prepared As Freud (1922) pointed out, the Army is often exposed to mortal danger, much of it unpredictable. And yet armies are seldom in a state of panic Furthermore, armies have prepared regimental behaviors for most conceivable dangers and yet armies do sometimes panic The etiological factors listed by LaPiere seem insufficient to explain military panic

Many writers on army panic have stressed individual predispositions to panic that are independent of any immediate danger Surveying this literature, Strauss (1944) divided such factors into (1) those that physically weaken men, like intoxication, bad health, bad nourishment, or fatigue; (2) those that lessen their mental ability, like confusion, doubt, uncertainty, and (3) those that produce high emotional tension and heightened imagination, like anxiety, feelings of isolation and insecurity. Even writers like Coste (1929) and Brousseau (1920) who make use of these variables do not see them as the whole cause of panic — not even when they are accompanied by a perception of great danger. Not all fatigued troops panic and not all troops in good condition fail to panic.

In McDougall's (1920) view of panic, men who are exposed to great danger become exclusively solicitous of their own welfare to the point of disregarding ties and feelings of consideration for others This corresponds with LaPiere's position in that the panic behavior is attributed to the perception of danger Freud (1922) conceded that McDougall might be correct for panic in unorganized collectivities but for the Army his views must be incorrect. In a way, Freud said, it is the lack of consideration that causes the perception of danger or, more correctly, it is the severing of libidinal ties between individuals in the collectivity. Members of an army are identified with one another as siblings of the same commanding officer. When a report goes around that the general is deserting or has lost his head these ties are broken and a panic is produced that is closely related to the neurotic panic an individual may suffer when affectional ties are broken Waelder (1939) accepts this theory as it stands. Farago (1941) reports that the Germans, prior to the last war, created experimental panics among soldiers, civilians, and school children so that they might learn how to "panic-proof" their storm troopers. They stressed the importance of impressive leader-personalities in giving a crowd its feeling of solidarity and invincible power. Andrews (1920), Coste (1929), Cygielstrejch (1916), Maxwell (1922), Schmideberg (1939), Brousseau (1920), and Rickman (1938) have all stressed loss of confidence in the leader as a cause of army panic. Faris (1948), in his analysis of social disorganization, took a position related to Freud's The relations between members of a successful social organization are essentially cooperative and harmonious Competition and conflict do occur but they are kept within limits and do not destroy the operations of the basic institutions and processes When the structure of mutual confidence weakens there is a tendency for behavior to lose much of its cooperative aspect and to become "pluralistic" — that is, each person seeks similar ends but the collectivity does not pursue common ends. Faris does not, however, go on to say that loss of confidence in leadership is the only cause of such pluralistic behavior He applies his description to groups where no leader exists If we grant that the perceived failure of a leader may be one factor that will destroy mutual confidence in a collectivity, we must now ask what circumstances will break down confidence in leaderless and unorganized groups to produce pluralistic, ruthless behavior

COMPETITIVE PANIC IN UNORGANIZED COLLECTIVITIES

In his general description of panic LaPiere formulates the basic prerequisites for this behavior — there must be an unanticipated danger situation for which there is no prepared or regimental behavior Freud has gone beyond this to suggest that in the organized collectivity a loss of confidence in the leader may be the principal causal factor. In the case of unorganized collectivities whose panic behavior manifests a disregard of the interests of others there is also more to be said The perception of crisis is not the whole cause of such panic The atomic bombing of Hiroshima must certainly qualify as a crisis for the population of that city. Yet Janis (1951) finds only one clear-cut instance of panic A mob seeking refuge from a fire in a small area of safety near a river forced helpless and wounded people into the river, where they drowned. This is a demonstration of that irrational escape reaction which we call panic.

Alexander Mintz (1951) has conducted paradigmatic experiments which illustrate important aspects of this kind of panic. He takes exception to the classical view that the brutalizing effect of a mob causes intense emotional excitement to spread by contagion and interfere with adaptive behavior. Mintz believes that

intense emotion is not essential to panic behavior and that the nonadaptive character of this behavior can be explained on the basis of the perceived reward structure of the situation In a theater fire if everyone leaves in an orderly manner all may be saved, and so an individual waiting his turn is not sacrificing his interests However, if the cooperative pattern of behavior is disturbed the individual who waits his turn may be burned to death. If people push and jam the exits it would be a mistake to patiently wait one's turn As soon as a minority of people ceases to cooperate, conflict between the needs of individuals arises Mintz does not deny the existence of mutual emotional facilitation but holds that it is not responsible for nonadaptive group behavior. Behavior that is nonadaptive for the group as a whole arises because the breakdown of cooperation makes this behavior appear to be adaptive from the point of view of the individual

In his laboratory paradigm Mintz put aluminum cones with attached strings into a large bottle with a rather narrow neck such that only one cone at a time could be withdrawn from the bottle If two arrived together they would jam the neck The cones are his people and the bottle neck his fire exit. Some 42 experiments were conducted with a great number of experimental variations.

In *Reward and Fine* conditions, water was gradually admitted to the bottle and each subject was told that he would be given twenty-five cents if he removed his cone while it was still perfectly dry. As the wet area of his cone increased he would be expected to pay increasingly large fines. Some of the groups were allowed to confer on a plan of action before beginning, others were not. In some cases the participants were concealed from view of one another by means of a circular screen

No Reward groups heard the experiment described as a study of cooperation. No water was introduced into the bottle and there were no rewards or fines. They were, however, motivated to remove the cones as quickly as possible. In some groups selected subjects were primed to make noise and attempt to excite the group.

When *Reward and Fine* groups were not allowed any preliminary discussion, traffic jams at the bottle neck invariably occurred. Often no cones at all were extracted for a considerable period of time. Even where a preliminary plan was formed there were usually serious traffic jams. Where no jams occurred the subjects had apparently failed to take seriously the success-failure aspects of the situation Concealing the subjects from one another had little effect on the frequency of the traffic jams

In the *No Reward* groups there were no serious traffic jams. This was true even when the collaborators attempted to stir up excitement

Mintz interprets his results as confirmatory of the theory that panic results from an unstable reward structure The results with concealed subjects and collaborating noise makers are believed to demonstrate that emotional contagion is not essential to panic Mintz believes his analysis to be similar to that offered by Freud Both emphasize the breakdown of mutual consideration Freud was concerned with panic in an army, where fleeing from the enemy might be advantageous to the individual and disadvantageous to the group in much the same way as is jamming The two analyses differ, however, in two important respects

When a group of soldiers bolts, their selfish interests are not in competition in the same way as they are in Mintz's situation. They do not fight over the exit

Freud saw panic as the result of broken libidinal ties, broken because faith is lost in the leader through whom the soldiers are identified with one another Mintz believes nonadaptive behavior to result from a failure of cooperation on the part of some individuals which alters the perceived reward structure of the situation and thus causes others to fail to cooperate. Mintz does not discuss the role of the leader.

It may be objected that the Mintz analysis suffers from the same shortcomings as those analyses of mobs that employ concepts of contagion, facilitation, imitation, etc The mechanism invoked explains the spread of a mode of behavior through the mob but not the origination of this mode. Mintz says. "However, the situation changes completely as soon as a minority of people cease to cooperate" (1951, p. 151). It is another problem to determine in what circumstances the "minority" will come into existence.

One approach to this problem is in terms of the individual threshold for mob action Where the action is aggressive the impulsive triggers to action who are deficient in social control can be identified by criminal records, selfish purposes to be served, etc. In panic it is not clear whether the individual who is deficient in socialized cooperative impulses is a criminal type. Apparently not, however. Inciters to panic are usually described as "excitable" or, even more aptly, as "panicky." This they certainly are, but

we don't know much about the nature of "panick-proneness" that is independent of the panic reactions to be explained.

A somewhat different approach to this problem would ignore personality differences, and concentrate on situational positions that might conduce to panic initiation We can conceive of a theater or night club fire in which some individuals are so remote from the exit as to feel that even with perfect cooperation, their turn to escape will come too late The initial reward structure of the situation would not then be the same for all individuals If this were true the origination of panic behavior could be explained by Mintz's principle Those farthest from the exit would tend to perceive the situation as one in which cooperation would avail them nothing From this quarter, then, panic reactions should first arise With the breakdown of cooperative behavior in one part of the mob the reward structure for the remainder would change and competition would spread Combined study of personality differences and positional differences should clarify the nature of panic

Acquisitive Mobs

Acquisitive mobs are centripetal in action They converge upon some desired object Acquisitive mobs are emotional and irrational The behavior of the individual in the mob is either badly calculated to advance his own interests or it is ruthlessly selfish in sacrificing the interests of others Faris (1948) described as panics some mobs which we should include here — the bank run, the food-hoarding stampedes Other writers have described hunger riots, which can also be classified as acquisitive mobs.

In a short but fascinating article Mrs. Elsie Vaught (1928) has given us some understanding of the bank run. In December, 1925, several small banks failed to open in a particular city The other banks anticipated a run the next day. One of them happened to be in a position to pay off all its depositors and instructed the tellers, including Mrs. Vaught, to do so. Next morning a crowd gathered in the bank and on the sidewalks outside. Through the day it grew ever larger and more violent. Mrs Vaught testifies to the power of the mob when she reports that although all of the tellers knew the bank was sound several of them cashed checks for their own balance Mrs Vaught herself resisted the impulse with difficulty

During the last war many acquisitive mobs indulged in food hoarding In September, 1939, housewives made a rush on sugar, although there was no real threat of a shortage At an eastern private school for girls a rumor was circulated that clothing was to be rationed, and that afternoon the girls converged on the department stores, buying unneeded garments which they usually charged to their parents. In the country as a whole, coffee, tires, gasoline, shoes were all the focus of acquisitive mobs One woman was known to purchase 75 dollars worth of electric light bulbs, one family a 40-year supply of canned foods.

These acquisitive behaviors were not illegal and not seriously immoral To explain them we need not posit unconscious impulses and superego suspensions Most people who hoard or make runs on banks are aware that what they are doing is not quite right — is, at the very least, rather selfish But these people are able to accept a little selfishness in their self-concept or, if not, can easily rationalize it by thinking how badly the family needs gasoline or sugar or light bulbs. The *impression of universality* operates here not so much to redefine right and wrong as to define a practical, sensible line of action — not ideally altruistic to be sure, but necessary if the interests of one's family are to be safeguarded The assurances of bank managements that they are in sound financial condition or of merchants that no shortage of sugar exists will always fall short of perfect credibility. The difficulty is that the management and merchant clearly have a selfish interest in denying the shortage When a mob acts as though there were a shortage they will convince many others that a shortage exists In a way, of course, this is a sensible reaction, since the mob can create a shortage Most hoarders hoarded in order to prevent the hoarders from hoarding everything.

Faris (1948) points out that many social institutions must operate on an assumption of cooperative behavior from their members Banks are not always in a position to pay out all accounts and must rely on their depositors not to appear simultaneously and demand their money. These are, then, as Mintz points out, situations of unstable reward structure. If depositors begin closing their accounts or a neighborhood starts buying up sugar others will perceive the breakdown of cooperative behavior and will adjust their behavior to this breakdown by entering into competition for the scarce goods. The bank run and hoarding run,

then, are similar to certain kinds of panics. In the theater or night-club fire, as in the run on sugar, a need exists for which there are limited possibilities of satisfaction. If everyone cooperates it is probable that all needs can be satisfied, but when some cease to cooperate the reward structure changes. It may be that we should call all of these situations "panics," but if they are put together there is still an important distinction to be made The theater fire precipitates escape behavior, the sugar shortage precipitates acquisitive behavior. It is our preference, therefore, to refer to the *stampede dynamic* whenever Mintz's unstable reward structure is involved and to reserve the word "panic" for escape mobs. Not all of these involve the *stampede dynamic,* as witness the panic of soldiers fleeing a battlefield or of people jumping off a sinking ship. In these cases the need satisfier is not in short supply — there are plenty of exits.

In acquisitive mobs involving stampede situational position may be as important as it is in panics. The writer recalls a ticket line formed early one morning outside the New York theater showing *South Pacific* in the days of that show's first great success Everyone in the line knew that the box office would open at 10 A M and then sell exactly 40 S.R O tickets — the limit allowed by law Still the line did not end with the 40th man. The presence of additional people caused considerable unrest among the first 40, who could see no reason for the extra people staying unless it was to attempt to cut in on the legitimate line. This, they all assured one another, they would resist One woman stopped just alongside the line at position 20 and stayed there. After many angry glances, mutterings, and shufflings she was told that it was certainly hoped she didn't conceive herself to be in line. The intrepid woman replied that it was her right as a citizen to stand where she liked The legitimate line in her vicinity contracted and bristled and snarled until the woman suddenly flushed very red and walked on, having exhausted her interest in standing in that particular spot

Finally, however, a sizable number of the plus-40 group detached themselves — walked boldly to the front and founded a rival parallel line. It was no more than 15 people, but it stayed If the legitimacy of both lines was recognized at the box office and tickets were sold simultaneously to both, the people who were in the last 15 or so of the first legitimate line would lose out There was terrible distress in this region of the line. Ought they to count on the rival line being ruled illegal or should they bolt and obtain positions among the first 20 in the second line? In this acquisitive mob competitive behavior was initiated by those for whom the cooperative pattern could bring no rewards and threatened to spread to new positions which were now threatened by cooperation.

Perhaps somewhat similar psychodynamics operate when there are two candidates for nomination within a political party. Recently Senator Taft represented the early legitimate line within the Republican party. There were party members, whole state organizations, who had opposed his views and might be considered too far back in line to profit from his election. They set up a rival line behind General Eisenhower which was at first shorter than that behind Taft. There were still good positions to be had in the Eisenhower line. Those far back in the Taft succession felt the lure of the better position and also the caution of its possible illegitimacy Political stampedes show characteristics similar to the bank run or the dash for a fire exit.

Expressive Mobs

In "The Funeral of Sister President," J. H. Douglass (1944) confronts the classificatory problem which the expressive mob is intended to answer. This funeral in a backwoods town on the Mississippi Delta involved more action than occurs in an audience "The rattling of feet began and as the ministers delivered their sermons various members of the audience would give shrill screams and fall prostrated" (1944, p. 218). Douglass finds that this mob does not fit neatly into any existent category of active crowds. It is neither aggressive nor escapist nor, we should add, acquisitive. The expressive crowd can only be characterized by exclusion. It is an active crowd — a mob — whose behavior shows none of the three tendencies described, but does give vent to common emotions It is irrational in that strange sense of the word which holds everything to be irrational that is not instrumental to the satisfaction of primary needs. The behavior of the expressive mob is consummatory.

LaPiere (1938) uses the term "revelous behavior" to describe much that we call expressive mob action, e.g., the orgiastic dance, the Mardi Gras, the revival meeting. This is behavior that provides a release from the humdrum routine of normal life. The need for revelry

is said (LaPiere, 1938) to be produced by the maladjustment of the individual to his social role It provides release for the psychological tensions generated in social life There are, in most societies, definite occasions set aside for revelry — the fiesta, the Harvest dance, the primitive orgy, New Year's Eve. Other revelous behavior is not a part of society's calendar There are individuals and social organizations providing revelous opportunity for their own financial gain or other private ends. The evangelists' meeting, the bar, the county fair, the burlesque are likely to be of this character. In modern western societies revelry is often elaborately justified as a religious festival, an important professional convention, or a means of furthering agriculture and business progress.

LaPiere's revelous behavior occurs on the group level in wild parties and sprees as well as on the crowd level. It is more than a description of expressive congregations It is a theory as to the reasons for the occurrence of such behavior. We may ask if lynchings and riots are not likewise revelous. It has often been suggested that lynchings are popular because of the humdrum of Southern rural life and that rioting may represent a holiday from dreary production lines. We escape this dilemma only by defining expressive behavior as exclusive of aggression, escape, and acquisition Any ordinary sense of expressive would include these and all other behaviors What in human behavior is not expressive of the human being?

THE EXPRESSIVE POLARIZATION

When a polarized collectivity becomes very active — in ways that are neither aggressive, escapist, nor acquisitive and yet not conventionalized, we speak of the expressive polarization. Even as not all polarizations are expressive, so not all expressive behaviors involve polarization, as the dancing manias and Mardi Gras illustrate. Expressive polarizations are common at the prize fight, at the bull ring, or at the baseball park. These congregations are more active than those attending the concert or theater. The expressive polarization was common at the old-fashioned melodrama or vaudeville show. It survives today in the small boys' movie matinee, where the hero is cheered, the horse is booted along, and the villain is sprayed with popcorn. The Roman Gladiatorial contest ended in a great free-for-all fight. Bull-ring *aficionados* sometimes jump into the arena. Football rooters frequently stream onto the field and tear down goal posts. All of these polarizations are deficient in the "aesthetic distance" that separates the spectacle from real situations calling for overt response.

The revival. Where expressive polarizations seek a particular mystical experience of personal conversion we shall speak of the revival. Anton J. Boisen (1939) studied the "holy roller" religious sects that prospered during the Great Depression. He includes such organizations as the "Assemblies of God" and the "Pentecostal Assemblies of Jesus." These are essentially laymen's movements, fundamentalist in doctrine, with no interest in social betterment. Their concern is to save people out of a sinful world Their hope is the glories of an after life Although austerity may be practised — no card playing, dancing or theater going — it is the mystical experience of salvation, the union with Greater than Self that is central to their doctrine. Their religious services stress participation in contrast with the conventional Protestant service where the congregation "sits out" the performance of the minister and choir.

Davenport, in his book *Primitive Traits in Religious Revivals* (1906), described details of many of these fanatical conversion meetings. His theoretical principles are largely derived from Le Bon and his point of view is objectionably racist. In recent times noted evangelists have included Aimee Semple McPherson, Billy Sunday, and Billy Graham. Audience participation is commonly initiated with rousing hymns and concerted prayers. All of this, however, is only propaedeutic to the crowd participation involved in coming forward to be converted or to confess one's sins. Aimee Semple McPherson urged the sick and the lame to come forward and be physically as well as spiritually healed. Boisen quotes extensively from a pamphlet called *My Baptism* written by a middle-aged white man, a one-time Sunday School superintendent of a Congregational Church who was converted to a Negro mission. In early meetings, this man stood somewhat apart from the mob, and he describes his experiences thus:

> Suddenly a woman on my right shouted, "Praise Him! Praise Him!" Jumping up, she began to dance seemingly without thought as to anyone's opinion as to the propriety of the act. (As quoted by Boisen, 1939, p. 188.)

After some months this man also lost his feeling for propriety and experienced an incredibly lurid conversion. It is evident in these examples and especially the description of hallucinations, seizures, trances, and delusions provided by Davenport that behavior "emerges" in the

fanatic revival which is not evident in individual behavior

It has frequently been suggested that the unconscious forces behind the conversion experience are sexual. Sinclair Lewis in *Elmer Gantry* and John Steinbeck in *Grapes of Wrath* stress the carnal appeal of the popular religionist The intimate alliance between personal confession and sex on the level of the dyad is generally familiar The pornographic object lessons dwelt on by Billy Sunday, the detailed confessions of promiscuity, all suggest sexual titillation and exhibitionism. The rationalizations, which Martin (1920) so stressed in his description of the mob mind, may appear here in the substitution of the love of God for more fleshly impulses

As in all other mobs, there is the problem of initiating action. Successful revivalists often employ professional "confessors" and "miracle cures" to trigger the audience into an expressive polarization These audience leaders — like experimenters in social psychology — wish to manipulate mob action and so must employ collaborators. When this is not done the naturally impulsive must be relied upon Davenport says

> Over and over again in the pages that follow we shall see the nervously unstable, the suggestible, the inexperienced affected by the highly emotional revival . . (1905, p. 3)

Once participation is initiated familiar mechanisms of contagion and *impression of universality* may be invoked In the *Psychology of Public Speaking* Scott suggests

> If the speaker has presented an idea in the form of a mental image, and I am a member of the crowd, the idea then seems to be presented by each individual, for I feel that each of them is thinking the thought and seeing the picture just as the speaker presented it, and hence it is in a sense presented to me by all of those present. is assumed by me to be accepted by all present, it would seem absurd for me to question it (1926, pp 178-179)

Most writers on revivalist audiences assume a secularist position that never seriously entertains the possibility of actual divine intervention to produce the singular phenomena of conversion — the trances and seizures. Although these authors have sharply criticized these mass religious phenomena, there is, apparently, something to be said on their behalf even from the secular point of view Boisen notes their great popularity with the poor during the Great Depression, and Davenport remarks the upswing in revivalist movements following the Great Plague in medieval times and the financial collapse of modern days. Boisen sees "holy roller" religion as conducive to feelings of social solidarity which make difficult times more bearable.

The Audience

The audience is a polarized crowd that congregates in order to be affected and directed, not in order to act. The state of polarization characteristic of the audience also occurs in many mobs, but the mob adds to polarization unconventionalized overt behavior of an aggressive, escape, acquisitive, or expressive variety. Audiences are those crowds that stop with polarization or with formalized overt action

The intentional scheduled audience must be differentiated from what LaPiere (1938) calls the "casual audience." A number of people accidentally congregated may temporarily become polarized through their interest in an excavation, a quarrel between taxi drivers, or the spiel of a sidewalk pitch man. MacIver's (1937) "like interest crowd" and K. Young's (1930) "passive transitory crowd" are much the same as the casual audience. Young points out that much of the lure of the *focus* may derive from the sight of other people peering through holes or over fences. The impression that "something is up" which derives from the evident curiosity of others may account for as much of the casual audience membership as does the intrinsic interest of the spectacle. It is well known that a group of practical jokers can attract a casual audience simply by staring fixedly up into the sky.

In contrast with the casual audience is the intentional scheduled audience. It is, as Young (1930) points out, less spontaneous, more closely regulated as to time and place, more definite in purpose, and more limited in the psychological effects it can produce than are most crowds. It is an "institutionalized crowd" included here only because some of its qualities are continuous with less conventionalized crowds.

The intentional scheduled audience may indulge in considerable overt behavior The movie screen invites us to sing along, following the bouncing ball. The opera goer may even shout — so long as it be "Bravo!," at the proper times. This overt behavior differs from "expressive" behavior in that it is carefully conventionalized. Such expressive polarizations as those at the ball game or prize fight are intentional and scheduled but their behavior is more

spontaneous than that of the "formal" intentional audience. In the radio studio applause may be commanded by placard or gesture. It is sometimes rehearsed before going on the air. The opera goer must learn how to be a sophisticated member of the audience. He must learn at what point an aria or duet is considered to have ended, which numbers are to be applauded, and what operas are not interrupted by applause.

When the *focus* of polarization is not very compelling college classes and movie audiences tend to become "expressive." The itch toward informal participation is so great in some as to lead them to call out snappy rejoinders to dialogue from the screen or to damn unhearing radio commentators. In radio and television the studio audience is sometimes invited to select the winner from several amateur contestants by "registering its approval" on an applause meter. The audience at home may "register" its feelings in the less welcome expressive gesture of clicking off the set.

The polarization of many audiences is physically aided, as Young (1930) has pointed out, by the semicircular seating arrangement. This encourages shoulder-to-shoulder interaction, the polarized crowd focused on some stimulus or object or event. At the same time the fixed seating arrangement prevents the close contact of the densely packed mob Woolbert, in his early monograph on the audience (1916), suggests that there are three stages in the development of polarization The members of an arriving audience interact among themselves. Groups of two and three chat and arrange coats while crowds push up the stairs and aisles. With the proper signal they turn to the *focus* — whether the projector clicks on, the curtain rises, or the conductor appears. While everyone may be looking at the stage there are still whispered comments and small movements. This might well be called the *overture phase* — a source of annoyance to those who polarize quickly. Where the spectacle is of transcendent interest the *overture phase* may be abbreviated or absent. Woolbert saw the third phase as the complete polarization of the audience, with the spectacle filling the field of consciousness and no awareness of the other members of the audience. This phase is not attained by every audience and is easily disturbed. If the speaker grows monotonous or the play loses fire the audience may begin to interest itself within itself. Young (1930) tells of a producer of stock plays in college towns who found Wednesday night a bad night as many young couples who were interested in each other attended on that night.

In total polarization Woolbert saw something akin to hypnotism, with the members losing their inhibitions as they forgot about one another's existence. His description calls to mind Freud's (1922) remarks describing the process by which the leader supplants the Ego Ideal in the minds of his followers. Woolbert goes on to suggest a rather unusual interpretation of the uninhibited behavior of certain crowds "From this point of view, then, crowdishness is in reality based upon isolation not combination, upon freedom from the presence of others not subjection to the will of the mass, it is a finding of the self apart from the rest, not a loss of self in a supposed crowd personality" (1916, p. 47). This rings true phenomenally for the experience of total absorption in a lecture, play, or concert But the congregate influence plays a more important role as soon as covert response begins to boil over into motor activity. The man in the balcony who is carried away by the play and calls a warning to the heroine will be made aware of the rest of the audience. Their reaction will restore his inhibitions In such heterogeneous, organized audiences overt responses have their mode and time. On the other hand, a man at a political rally may shout, "Let's go get the bastards," and sweep the crowd with him. The unscheduled overt actions of an audience member will not go far without support from others. Hitler could spellbind his audiences but their mob features required social facilitation. Under complete polarization an individual may initiate action but if the crowd does not sympathize his inhibitions will be restored.

CLASSIFICATIONS OF FORMAL AUDIENCES

Young's (1930) large category of the formal recreational audience is subdivided by LaPiere (1938) into the theater audience, the motion picture audience, and the popular lecture audience. Many members of these audiences are able to accept their attendance as a purely recreational function. Some members of all audiences find it necessary to develop ideologies attributing other than recreational benefits to their attendance LaPiere sees all of these as rationalizations, closely akin to those the mob uses to justify its lynchings. Certainly, large numbers of those who attend the opera or the occasional performance of Shakespeare are likely to feel that their behavior is "improving." Indeed, many would be surprised to hear it described as recreational. There is some feeling in America that simply pleasurable activity is self-indulgent and rather shameful. It is the

compulsive college student's dream to be given an "assignment" to attend a movie so that he may, for once, dream without guilt Probably, however, much of the ideology concerning the value of attendance at the opera or a concert is not rationalization of a guilty indulgence at all. The man who feels frivolous for giving in to his enjoyment of the opera is not common. More often members of the audience find themselves in attendance at an event from which they derive no pleasure and from which they did not expect to derive any pleasure Feeling uncomfortable but dimly respectful, they assimilate the occasion to similar ones in the past that have belonged in the category of "valuable" experiences

Young (1930) adds the category of the "information-seeking" audience and includes here the church sermon as well as the lecture on scientific or literary matters For LaPiere (1938) this is the educational lecture audience which he believes, under contemporary conditions, to be largely restricted to the university classroom. It is actually not easy to define the difference between the recreational and the information-seeking audience. The student who is profoundly interested in his subject matter may feel that he has never been so pleasantly entertained as by a dry but scholarly lecture. Our first thought, that these two are to be distinguished in terms of the kind of attention brought to bear — whether it is spontaneous or deliberate and effortful — seems inappropriate because of the possibility of great interest in an educational lecture. A better distinction is made in terms of the categories into which the audience member places the various occasions. The "information-seeking audience" includes its activity on the list of worthwhile things to do The recreational audience feels that it is on a holiday. Waelder (1939) distinguished the "association" from the "mass" by the state of the consciences of their members. The association has a homogeneous conscience, the mass is mentally divided. While the division is less severe, the existence of rationalizations in the recreational audience suggests that it is, in this sense, a mild form of the mass with heterogeneous conscience, while the information-seeking audience is at peace with its conscience

Collectivities Too Large to Congregate

On the larger size level of collectivities, *too large to congregate,* occur classes, castes, publics, electorates, and nationalities. Many of these have been the concern of other chapters in this volume Some of them have hardly been studied by social psychologists, the nationhood, for example, has only recently been adequately approached by social psychology in Gardner Murphy's book on India, called *In the Minds of Men* (1953). There are, however, three kinds of mass phenomena at this level which have been seriously studied by social psychologists. The first of these, the mass contagion, involves collectivities that are neither polarized nor characterized by identifications The second, the mass polarization, is polarized but does not involve *enduring* identifications. The third, the mass movement, involves congregations of representatives, polarizations, and identifications both *temporary* and *enduring.*

MASS CONTAGION

From time to time large numbers of people who are not gathered into one place or attending to any common stimulus or identified with one another, attract the attention of social scientists because of their collective folly. Such collectivities are accordingly stigmatized as masses Their follies are described as fads or crazes

1 *The fad* Fads are concerned with items of culture — chiefly material or linguistic — that are not closely related to the basic needs of hunger, thirst, or sex Bogardus (1942) has, since 1917, asked about 150 persons each year to select the five leading fads of the year. He discarded all those that were not cited by at least five persons There remained a total of 2,702 fads Bogardus says that most fads relate to the superficial, the ornamental, to accessories and gew gaws Approximately 80% of the fads appear for only one year, indicating a short life span as a dominant fad, although this does not say how many survive with reduced popularity. Although fads typically show a rapid growth, a high plateau of two or three months, and then a decline, the plateau is sometimes greatly extended, as in the cases of the man's wrist watch, the woman's bobbed hair Of course some of the most enduring fads are linguistic changes Mackay, in his fascinating book *Extraordinary Popular Delusions and the Madness of Crowds* (1932), relates the origin of the phrase "flare up" in England, where it was first applied, to the flames of Bristol when it was half burned in a series of riots. This phrase totally captivated the masses.

> The drunkard reeling home showed that he was still a man and a citizen by calling "Flare Up" in the pauses of his hiccough When, in due time afterwards, the policeman stumbled upon him as he lay, that guardian of the peace turned the full light of his lantern on his face and exclaimed, "Here's a poor devil who has been flaring up!" Then came the stretcher, on which the victim of deep potations was carried to the watch house and pitched into a dirty cell, among a score of wretches about as far gone as himself, who saluted their new comrade by a loud, long shout of "*flare up*" (1932, p 624)

This particular phrase has survived, though with a somewhat reduced semantic range. Other linguistic fads described by Mackay died away quickly and completely. No one today employs the word "quoz," let alone finding it an occasion for hilarious laughter, as all London did at one time Few indeed are the occasions on which we say "What a shocking bad hat" or "There he goes with his eye out." We can at least recall "Does your mother know you're out?" and "Twenty-three skidoo," while "Your father's mustache" may still be heard among cultural laggards

Fads in clothing are called "fashions." Richardson and Kroeber (1940), anthropologists, have made a quantitative analysis of women's dress during the last three centuries They dealt with six features of dresses, comprising three vertical and horizontal dimensions of the skirt as a whole, of the constricted middle or waist, and of the decolletage or cut-out at the neck Excluded from consideration were such appurtenances as trains, sleeves, girdles, and flounces They found that the basic dimensions of modern European feminine dress alternate with fair regularity between maxima and minima which in most cases average about 50 years apart, so that the full cycle of their periodicity is about a century The authors suggest that there is a basic pattern of women's dress style toward which European culture of recent centuries has been tending as an ideal. This basic pattern requires a skirt that is both full and long, a waist that is abnormally constricted, but in nearly proper anatomical position, and decolletage that is ample both vertically and horizontally.

J C Flugel in his *The Psychology of Clothes* (1930) holds that fashions respond to the human motives that dominate a particular society at a particular time. Thus in the eighteenth century, the body was largely a support for elaborate and gorgeous clothing, while with the naturalism that followed the French Revolution the purpose of clothes became that of throwing into relief the natural beauty of the human body Motives of exhibitionism, modesty, and eroticism interact with social conditions to dictate fashion As Doob (1952) points out, Flugel's position is not necessarily inconsistent with that of Richardson and Kroeber If one accepts the thesis of the latter two authors it remains to determine the reason why European fashion fluctuates around the one particular basic or ideal style In addition, Flugel's theories are in large part concerned with the appurtenances of dress — the frills and trains — which Richardson and Kroeber omit from their analysis

2 *The craze* The craze, like the fad, is commonly considered to be a mass folly It differs from the fad in that it is not held to be quite so trivial Crazes may have serious personal and social consequences, fads generally do not

Mackay (1932) describes the Tulipomania Craze of 1634. The rage to own tulips among the Dutch grew so great that prices were enormously inflated The ordinary industry of the country was neglected in favor of the tulip trade Many persons were known to invest great fortunes in a few rare bulbs In its collapse this craze showed the *stampede dynamic* The fabric of social confidence broke and there was a rush to sell before the market should be entirely gone

One of the most spectacular crazes of recent times was the Florida boom of the 1920's. This story has been told in most amusing detail in a series of recent New Yorker *Profiles* As prosperous postwar urbanites began to discover the winter vacation in Florida the demand for land grew and prices rose. A frenzy of speculation developed, with promoters stimulating it through flamboyant salesmanship techniques There came a time when gravel pits ten miles inland were being sold as seaside oases for thousands of dollars Again came the stampede descent, with some left rich and others left penniless

Many other crazes are described in Mackay's book (1932) and in Sidis' *The Psychology of Suggestion* (1898). Hecker (1888) tells the amazing tale of the dancing mania of the Middle Ages Marian Starkey relates the history of the Salem witch trials in *The Devil in Massachusetts* (1949). D. M. Johnson has provided a study of mass hysteria in *The "Phantom Anesthetist" of Mattoon* (1945).

With both fads and crazes there are three principal problems to be solved.

(a) What causes the appearance of the innovation?

(b) What factors affect the diffusion of the innovation?

(c) What causes the decline of the innovation?

The first two questions are similar to those which confront the scientists who would explain the origin of the species, or the mechanisms of animal learning

Darwin's answer to the first question was the theory of mutation Animal offspring vary in unpredictable ways Thorndike's answer to the same question in the field of animal learning was that the motivated animal will produce "random" behavior In explaining the initiation of social fads and crazes little more can be said Doob (1952) suggests that fads may originate in the interest of direct economic gain, as when a tin pan alley tunesmith turns out a candidate for the hit parade. This is most obviously the case with fashions. Fads may arise from private anxieties serving as symbolic symptoms or attempted solutions Linguistic fads may originate as slips of the tongue caused either by associative confusions, as Wundt (1900) thought, or by unconscious motives clamoring for expression, as Freud (1914) thought. In any case, individuals in social interaction make constant innovations, give old habits new twists, and make slips The problem, then, is to account for the survival and diffusion of some of these.

Darwin explained the endurance of certain mutants in terms of their "survival value" This will not explain the popularity of "Twenty-three skidoo." Thorndike explained the stamping in of response tendencies with the principle of reward. No doubt fad and craze behavior is rewarding in some sense. But if reward is given relatively precise meaning in terms of the satisfaction of tissue needs it will not explain fads and crazes, as they are always above the subsistence level. No doubt they satisfy social motives or secondary drives, but what these are is not known. Too often they have been inferred solely from the existence of the fad or craze itself.

Most commonly, answers to the question have employed one of the contagion principles — imitation, suggestion, or sympathy. To explain the selective diffusion of fads "prestige" is invoked If the concept is given some rather precise meaning as, e.g., more prestigeful people are people with higher socioeconomic status, it will not explain the diffusion of early Christianity from slaves to emperors nor of slang from criminals to college boys. If "prestige" is defined as an attribute of individuals who stand high in any set of human values it suffers the same difficulties as "reward."

Edward Ross, writing in 1908, described the "laws of crazes," some of which may be taken as valuable specific suggestions as to the conditions under which diffusion will occur.

(a) The more extensive its ravages, the stronger the type of intellect that falls a prey to it. If extensive is taken to mean the number of people falling prey to the craze the prediction is made that as this number increases there will be an increasing proportion of individuals with high I.Q. succumbing to it. This is a verifiable prediction It is not analytically true, as might at first appear. The numbers could increase with no shift in the I.Q distribution

(b) The greater its height, the more absurd the propositions that will be believed or the actions that will take place.

(c) A dynamic society is more craze-ridden than one moving along the ruts of custom. In a dynamic society so many transformations are experienced in half a lifetime that the past is discredited Ancestral wisdom is so often proved wrong that one forms a habit of changing habits To test this hypothesis some empirical definition of "dynamic society" must be found that is independent of the frequency of crazes in the given society

(d) Ethnic or mental homogeneity is favorable to the craze Caste lines break the sweep of the craze. The gentleman, the shopkeeper, or the clerk look disdainfully upon crazes begun by the lower orders. The English, in Ross's opinion, were more proof against crazes because of their more rigid class structure.

Ross also includes some predictions concerning the decline of crazes

(a) The higher the craze, the sharper the reaction from it Nothing is so prostrate as a busted boom town or a post-revival church.

(b) One craze is frequently succeeded by another exciting emotion of a different character. Boisen (1939) points to the frequent revival of interest in religion following economic panics. It would seem as though the emotions here are not just of a different character but are such as to make up for the insecurity of economic life, to give people, as Boisen suggested, a sense of social solidarity If Ross's examples are all like this a more specific generalization is suggested than that of a craze exciting "different" emotions.

Mass contagion differs importantly from the contagion in most mobs. All fads and most crazes involve activities that are not inhibited by serious forces of moral prohibition or legal condemnation. There is little resistance to the adoption of a fad or craze except behavioral inertia or a mild reluctance to appear silly. Consequently it is not necessary to invoke mech-

anisms producing legal immunity or dethroning the superego It is only necessary to demonstrate some force favoring adoption of the fad or the craze, but this must be a force whose presence can be detected prior to the adoption Unfortunately neither "prestige" nor "reward" satisfies this requirement.

MASS POLARIZATION

Mass polarization is made possible by radio and television These may be either *periodic* or *temporary-irregular* polarizations. Usually these are mass audiences involving only attention and covert response or highly conventionalized overt response It is, however, possible for the mass audience, like the crowd audience, to become actively aggressive, escapist, acquisitive, or expressive. Active expression probably occurs frequently with people spontaneously talking back to the machine or shaking their fists at it. Acquisitive behavior might be set off by a rumor of shortages or bank failures repeated on the mass media It is the purpose of advertising to set off mass acquisitive behavior. Merton (1946) has studied the mass persuasion involved in Kate Smith's radio attempts to persuade Americans to buy war bonds. Overt aggression seems not to be set off by mass polarization Listeners to racist demagogues do not leave their radios to murder Jews. This may be because of what we shall call the *damping effect* The individual who is set in vibration by his radio or television and then tries to act in the world outside his home at once contacts people who have not been attending to the same *focus*. They are not likely to be as wrought up as he and will quash his aggression. Like the member of the congregate audience who is too much "carried away," the member of the mass audience does not meet with popular support. He is "damped" by an inert populace. Members of mass audiences can become actively expressive or acquisitive because these actions are not so objectionable as aggression.

A polarized mass can, however, become panic-stricken, as it did while listening to Orson Welles' broadcast of *The War of the Worlds* on Hallowe'en in 1938. It has been estimated that more than one million people were seriously disturbed. These people were at no time congregate but were polarized in their attention to a single radio program. S. H. Britt, in his *Selected Readings in Social Psychology* (1950), provides an account of a radio panic set off in Quito, Ecuador, by a Spanish translation of *The War of the Worlds*. In England in 1926 there occurred a radio panic set off by Father Knox's description of an unruly mob on the loose. There was not so intense and widespread a fear as that caused by the Welles' broadcast.

The Columbia Broadcasting System instituted an immediate nationwide survey of individuals who had listened to the Welles program. Under the direction of Hadley Cantril, intensive interviews of 133 people in the New Jersey area were carried out, with over 100 of those selected because they were known to have been frightened by the broadcast. These intensive interviews were conducted later and on a less representative sample than the C B S. surveys. The American Institute of Public Opinion also conducted a nationwide survey. These three sources are used in *The Invasion from Mars* by Cantril (1940).

People all over the United States were praying, crying, fleeing frantically to escape death from the Martians. Some ran to rescue loved ones, to inform neighbors, or telephone farewells. Here are most of the panic behaviors described by LaPiere. This mass panic does not manifest the *stampede dynamic*, as there is no competition for a limited means of escape.

The Mars broadcast was given as a series of news dispatches with very great verisimilitude. Of those hearing the broadcast many more who tuned in late interpreted it as a factual news broadcast than did those who were tuned in from the beginning. The late tuners missed the frame of the program — the announcement of the play — which would ordinarily prevent its being taken seriously.

Cantril took those who at first interpreted the program as a news broadcast and classified them as follows

(a) Those who analyzed the internal evidence of the program and knew it could not be true. Here belong the people who recognized the voice of Orson Welles or the story of H. G Wells or those who could tell that the sequence of events was too rapid to be true

(b) Those who checked up successfully to learn that it was a play. Many people dialled other stations and discovered that this sensational news was not being broadcast and learned that it was a play. This is a kind of *damping effect*.

(c) Those who checked up unsuccessfully and continued to believe that it was a news broadcast. Some of these looked out the window or went outdoors, generally encountering ambiguous evidence which was interpreted as confirmatory of the broadcast "news."

(d) Those who made no attempt to check the authenticity of the broadcast.

The first two of these groups are considered to be "successful adjustments" and the second two "unsuccessful" Cantril relates two variables to these responses to the broadcast. The first he calls "critical ability," suggesting that it is present in people who are characteristically skeptical and inclined to check their interpretations of events or who could bring relevant information to bear. He assesses critical ability from the standpoint of educational level and finds that among the listeners surveyed by C B S the tendency to think the program a news broadcast was inversely related to formal education, with nearly twice as many grammar school as college graduates believing This relationship holds when either of two correlates of educational level, age or economic status, is held constant Two-thirds of the successful adjustments were made by high-school graduates Only one-half of those who made unsuccessful adjustments were high-school graduates It is of importance to note here that in his study of groups in an experimentally created fear situation, French (1944) found that subjects high in critical ability, as indicated by intelligence and education, tended to be skeptical of the artificially produced "danger" situation.

Cantril calls his second variable "susceptibility to suggestion" It is assessed from insecurity phobias, amount of worry, lack of real confidence, religiosity, and frequency of church attendance as these are judged from answers to certain interview questions. It is an assessment that can be made reliably. Cantril found that individuals making unsuccessful orientations were much higher in susceptibility to suggestion than were those who made successful orientations, even with education constant.

Having related unsuccessful orientation to lack of critical capacity and susceptibility to suggestion, Cantril proposes psychological explanations for the inability of individuals to verify the broadcast.

(a) Individuals possessed standards of judgment that adequately accounted for the events and made them consistent with latent expectancies.

(b) Individuals did not have adequate standards of judgment by which to distinguish between a reliable and an unreliable source of information.

(c) Individuals had no standard of judgment and felt the need of one by means of which they could interpret the reports. They accepted the interpretations provided by the observers of the event, who were backed by the prestige of radio.

(d) Individuals had no standard of judgment and unhesitatingly accepted the one provided.

The mass polarization that becomes active in many ways resembles the mob. It differs principally in that, not being congregate, its members who go forth to act are likely to be *damped* by unsympathetic people A certain amount of action can still be inspired in the mass polarization because some actions will not offend people, others will meet ambiguous response which does not definitely *damp* them.

THE SOCIAL MOVEMENT

Many of the phenomena we have studied as crowds might have been treated as manifestations of mass movements. The individual revival meeting may be part of a mass movement towards fundamentalist religion. Mass movements may involve polarization on the *periodic* or *temporary-irregular* level and congregation of representatives on the same two levels. But the mass movement extends beyond any single congregation or consociation It involves *enduring* identifications which bind the members together when they are spatially separated. In analyzing the psychology of mass movements, emphasis shifts from the properties of congregation and polarization to the problems of the movement as a whole

Mass movements are distinguished from such organizations as the Republican party by their "subversive" character They are imperfectly assimilated to the larger society and more or less in revolt against that society The mass movement has a crusading zeal not characteristic of established institutions. Actually, then, the mass movement is an artificially delineated stage in a process. It begins with a general cultural drift that may have no definite leadership or membership. Blumer (1951) calls this early condition of social unrest the "general social movement" The labor movement, the women's movement, the emancipation movement all showed a long preparation in literature and unorganized talk The mass movement growing out of this period develops a recognized leadership "and a definite membership characterized by we-consciousness" (Blumer, 1951, p 202). It has a set of values and expectations, a division of labor develops within the movement Dawson and Gettys (1935) describe four stages: the stage of social unrest, the stage of popular excitement, the stage of formalization, and the stage of institutionalization. As the structure of the movement crystallizes and the leader loses his prophet-like character to become an administrator, we speak of its institutionaliza-

tion. Rather than deal with stages, Blumer has described the mechanisms of this progress agitation, development of *esprit de corps,* development of morale, the formation of an ideology, and the development of operating tactics

Blumer distinguishes the reform movement from the revolutionary movement. Both seek to effect changes in the social order but a revolutionary movement, like communism in America, has broader objectives than a reform movement like the Townsend plan. The reform movement accepts the basic tenets of the larger society, indeed it uses the social mores to criticize specific social iniquities. The revolutionary movement challenges the foundations of the society. Reforms tend to be respectable, while revolutionary movements tend to be driven underground

The Townsend Plan — A reform Hadley Cantril discusses this plan in his book *The Psychology of Social Movements* (1941). In 1934 Dr. Francis E. Townsend, a doctor in his sixties living in California, as were so many elderly Americans, conceived a plan to relieve the distress of old age in depression America. The plan has three essential parts (a) All citizens of the United States, 60 years old or over, shall receive a monthly pension of $200 (b) Every person accepting the pension shall agree under oath to spend it within the boundaries of the United States within 30 days (c) The pensions will be financed by a 2% tax on all business transactions The movement grew rapidly, and by 1935 there were estimated to be some 20 million members of Townsend Clubs. In the fall of that year a national convention (congregation of representatives) was held in Chicago In January of 1939 the American Institute of Public Opinion asked a representative sample of Americans "Have you heard of the Townsend Plan? If you have, are you in favor of this plan?" Ninety-five percent of those questioned had heard of the plan and 35% were in favor of it. The supporters of the plan represent a special interest group. They tended to be older and of lower economic status. However, the plan was not without support in other segments of the population, including younger groups. Although it is for the immediate benefit of the older poor, this is a special interest group to which many must eventually belong. In addition, the immediate operation of the plan was expected to open jobs for the young Cantril finds the satisfactions offered by the movement to lie in several areas. It promises to satisfy material needs and provide security. It is simple enough to be understood and gives people a real goal in this confusing and unsatisfactory world. It does not conflict with any more profound loyalties The Townsend Plan is American and capitalistic, a reform advertised as an answer to such revolutionary movements as communism.

Blumer distinguishes both reform and revolutionary movements from the expressive movement. The terror and unrest out of which the expressive movement emerges are less clearly focused on specific social change Instead, they are released in expressive behavior which may, however, have profound effects on the social order. The religious sect is such an expressive movement, characterized by feelings of exaltation and the use of sacred symbols, including a sacred prophet As it moves toward institutionalization, the sect develops a creed, a ritual, and a theology.

The Kingdom of Father Divine — An expressive movement From interview materials Cantril (1941) has provided considerable insight into this sect. Father Divine is God — by self-proclamation, by the conviction of thousands, by vote in 1936 of the International Righteous Government Convention. His Heaven is in Harlem, but branch kingdoms are claimed to exist across the United States and in most parts of the world. Those of his children who come to live in one of the kingdoms give Father Divine their property, their insurance, their extra clothes, savings, everything Those who live outside must contribute after they care for their own minimal needs The new follower is born again — baptized with a new name, separated from his family, his age computed from the day of his baptism. Smoking, drinking, and cohabitation are outlawed in the kingdoms. Signs of bodily afflictions — glasses, trusses, or crutches — must be thrown away. No medical or dental attention is allowed. Reading is prescribed, radio and movies ruled out Father's kingdom is in this world. Cantril describes the gratifications deriving from membership in a kingdom There may be relief from material hardship, all are promised food, shelter, and clothing by Father Father gives meaning to life. He explains the puzzles of the contemporary world. Status is derived from association with God. As Cantril says, the kingdom is a microcosm. Its ability to provide satisfactions depends on its ability to keep the macrocosm from crushing it Every effort is made to isolate the children from dangerous contacts, to provide them with explanations for the contradictions of the outside world. The great danger is that their vibration will be *damped* by an out-of-phase community.

In some respects the movement shows reformist characteristics. Divine's Righteous Govern-

ment platform demands legislation in every state outlawing every sort of discriminatory practice against race, color, or creed. It offers, however, satisfactions not provided by such a reform organization as the N.A.A.C.P.

The Mass as an Unorganized Collectivity

The negative flavor of "mass phenomena" has not been lost in Cantril's psychological analysis of social movements. He discusses the lynching mob, the Kingdom of Father Divine, the Moral Rearmament Movement, and the Nazi Party. None of these is intellectually respectable and two of them are principal horrors of modern times. It would be unfortunate if this connotation of "mass phenomena" prevented us from seeing the social psychological kinship between the Nazi Party, the Kingdom of Father Divine, the labor movement, the Women's Suffrage Movement, and, for that matter, primitive Christianity Although very differently valued, these are all social movements alike in several important respects. Social movements do not all qualify as "mass phenomena" if opprobrium is the defining attribute.

Freud (1922), examining the accounts of collective behavior given by Le Bon (1903) and McDougall (1920), was struck by their disagreement derived from Le Bon's emphasis on unorganized collectivities as opposed to McDougall's interest in organized collectivities. Freud suggested that the individual loses his sense of continuity, his self-consciousness, his traditions and customs, his own particular functions and position, by entering into a crowd Organization serves to procure these features for the collectivity. It involves enduring identifications, traditions, and division of labor. Notably deficient in all of these are mobs — whether aggressive, escapist, acquisitive, or expressive — and collectivities involved in fads, crazes, or mass polarizations. These are most clearly "mass phenomena." The audience and the social movement are transitional. There is a rudimentary organization in the audience; the social movement is often on its way to institutionalization. The category "mass phenomenon" retains the essential core of its extension if it is defined as the behavior of a large unorganized collectivity rather than as the undesirable behavior of a large collectivity.

It will not have escaped even the inattentive reader that this chapter is rather long on theory and descriptive classification but a bit short on experimental results The experiments reported (French, 1943; Grosser, Polansky, and Lippitt, 1951; Meier, Mennenga, and Stoltz, 1941; Mintz, 1951) suggest, however, that essential features of mass action can be preserved in laboratory models. To evaluate the adequacy of the experiment we need to keep the original phenomena clearly before us. The man who experiments on "personality" keeps in touch with his subject matter through the clinical case study. In the area of mass phenomena this function is served by such excellent field studies as those of Cantril, 1940, 1941; Lee and Humphrey, 1943; Pruden, 1936, and Raper, 1931. Re-examining the traditional problems of classification and theory may teach us to make the observations that will advance the psychology of the "mass mind." To neglect this area is to disappoint the "people" in one of their principal hopes from the science of social psychology.

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CHAPTER 24

Leadership

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Although it may be true, as one recent writer has claimed, that in 1896 the Congressional Library had no book on leadership, it is not true that interest is newborn in this universal phenomenon of society. Almost every influential thinker from Confucius to Bertrand Russell has attempted some analysis of the differential exercise of power of individuals over one another, which characterizes all social life. What, perhaps, is true, is that the last decade, in social psychology and sociology, has witnessed a great concentration upon the scientific analysis of leader behavior. It is upon these analyses — philosophical, observational, and experimental — that this chapter is based.

The ideological conflict which today dominates all thinking about social issues is, in large part, resolvable into a matter of attitudes toward authority and leadership. The meaning of both totalitarianism and democracy may be expressed in terms of leadership phenomena.

The increased tempo of thinking about leadership phenomena is just one facet of our greater awareness of our own strength. The tremendous advances of the physical sciences, enabling men to travel safely and far at speeds greater than that of sound, and at the same time placing in their hands improved means of destroying themselves and other men, have suddenly highlighted the importance of our learning to live peacefully with one another. "Human Relations" have become a major concern of both physical and social scientists No one can any longer afford to enjoy the stimulation of neighborly quarrels, for the neighbor across the border may be driven to push his button before we push ours. In such an atmosphere it is inevitable, and essential, that we examine with minute care the social organization that may lead to pushing such buttons. One important element of this organization is leadership "Both laymen and scientists agree that if we can understand the selection and training of leaders we can begin to take adaptive steps toward controlling our own social fate" (Hemphill, 1949, p 3).

Definitions

Within this chapter, three key terms seem to call for some precursory definition. These are *group, leader,* and *leader behavior*. The chapter itself will be devoted primarily to a more complete definition of the latter two terms.

DEFINITION OF THE GROUP

The term *group* is so well known that none of us would ordinarily turn to a dictionary to discover its meaning. But any person who asks a class of students to define and give examples of groups will discover that the term by no means has an unequivocal connotation. On the one hand, the word is used to refer to varied relations between objects, while on the other it embraces organizations of such different levels of complexity that it seems incredible that a common set of concepts and methods of study would be applicable to them. In consideration of this first source of confusion, one may point to at least three types of relation frequently denoted by the term "group."

1. Objects (or persons) which are, in some sense, together, for example, together in a certain place or together in the mind of the observer, are frequently said to be grouped or to constitute a group. In this chapter, however, such togetherness will be named an *aggregate* or a *collection*, and it will be differentiated from a *group*. Units of an aggregate are characterized by complete independence of one another. It is true, of course, that the aggregate would disappear if all the units were taken away, but no unit of the aggregate is changed by its nearness to other units. Also, as Asch points out (1952, p. 259) "their order is of no consequence." Whether any human aggregates actually exist may, of course, be doubted. There is evidence to suggest that mere awareness of the presence of others changes individual behavior in many ways, thus implying an interaction among the

units which negates the term "aggregate" or "collection" In any case, aggregations are of little or no importance to the social scientist, since they exclude the facts of interrelation.

2 A group might also be defined as a collection of units having qualities in common Some aggregates may be homogeneous in some respect and through the perception of this homogeneity they will constitute classes A heterogeneous pile of objects on a bargain counter may, perhaps, be used to illustrate an aggregate A similar pile of magazines on a nearby counter, however, is different, in that every unit here is a member of a class of things In this case every unit embodies, in some particular manner, the nature of the class in question. While every book belongs to the aggregate we call a pile, it also belongs to the class of things called magazines The particular pile is a sample of this class of things. Social groups conforming to this concept would be collections of individuals who are perceived to have common characteristics. For example, those who earn more than some arbitrary number of dollars per year may be said to constitute an economic class; those who are accepted into certain prescribed company may be said to form a social class, men who wear homburg hats constitute a class "One can say of this type of group also, that it excludes the fact of interaction, the members are what they are with no living relation between them, with no contact or even proximity" (Asch, 1952, p. 260). For these reasons the class also has little interest for the psychologist concerned with organization and leadership. Without interaction neither of these phenomena can appear.

3. There is a third type of relation between objects (including persons) for which the term *group* is more properly used A group is characterized by the interaction of its members, in such a way that each unit is changed by its group membership and each would be likely to undergo a change as a result of changes in the group In this case there is a dependence of each member upon the entire group, and the relation between any two members is a function of the relation between other members. An aggregate of persons thus becomes a human group when interaction occurs among the units comprising it.

While the concept of interaction between members may serve to differentiate the group from the aggregate, it is not, by itself, a satisfactory definition of the group. We shall do well to examine briefly some of the attempts which have been made at definition. Sociologists and social psychologists have frequently tried to reduce to a minimum the criteria of a functional group

Group definition in terms of interdependence of members has been offered by Kurt Lewin (1939) and others For Lewin, interdependence of members was the criterion of a group, as it was of any unitary whole He pointed out that many social scientists define groups in terms of similarity of members, and that this was, in fact, the case, whether the primary emphasis was upon similarity of attitudes, or equality of goal, or equality of an enemy, or a feeling of loyalty. It was admitted, of course, that those similarities could be found in association with, and might be the cause of, a certain interdependence of the persons who show them. Krech and Crutchfield have accepted this Lewinian point of view and define the group as follows

> A group does not merely mean individuals characterized by some similar property Thus, for example, a collection of Republicans or farmers or Negroes or blind men is not a group These collections may be called classes of people. The term group, on the other hand, refers to two or more people who bear an explicit *psychological relationship to one another* This means that for each member of the group the other members must exist in some more or less immediate psychological way so that their behavior and their characteristics influence him. (Krech & Crutchfield, 1948, p. 18)

On the other hand, Gillin and Gillin (1946), while they accept the criterion of interdependence or interaction, are inclined to equate this with holding interests or having purposes in common They point to the function of common interests in motivating the "social relations" which characterize a social group. For these authors the group becomes manifest through the behavior which the members exhibit toward each other and toward the outside world. A group exists when *basic group responses* have been established, and this state would seem to be reflected in the development of what Cooley called *we-feeling*.

Definition of the group as an instrument of satisfaction of individual needs. R B. Cattell (1951, p. 169) has suggested that the definition of a group in terms of "internal interaction" of individuals seems less fundamental than to define it in terms of goals. "Our definition of a group is: 'an aggregate of organisms in which the existence of all is utilized for the satisfaction of some needs of each.'" This is probably the most basic and broadest definition of the group yet put forward. It embraces groups of all kinds, both primary and secondary.

For our purposes, this definition may be re-

stricted and rephrased as follows *The term functional group refers to two or more organisms interacting, in the pursuit of a common goal, in such a way that the existence of many is utilized for the satisfaction of some needs of each* In this form the definition of a functional group clearly characterizes it as referring to that type of relation between objects in which each unit (member) is changed by its group membership. In this form there is no direct conflict with the Lewinian type of definition

Specific mention is made here of common purposes or goals, since there can be little question that some common goals are a necessary condition for the existence of a functional group, and that these goals must be such as to give satisfaction to needs of the individual members who participate in the group. Interaction between members is made part of the definition rather than left as an implied consequence of group formation. It is impossible to conceive of a functional group without interaction and interdependence of members Organization or *structure-in-interaction,* on the other hand, is not required as a defining characteristic of the concept of "functional group," however generally groups reveal structure in interaction Nevertheless, the almost inevitable development of organization should not be overlooked. Znaniecki has pointed to the emergence of group institutions as one of the basic processes of group formation. Of this he writes:

> In the beginning of the process of group formation those activities which make it a cultural product are experienced as spontaneous performances of voluntarily cooperating individuals. But as the group is formed and its makers become its members, such activities are normatively standardized and systematized until they come to be regarded as group institutions, the whole system of which constitutes the dynamic organization of the group The function of each member consists in his obligatory active participation in group institutions, functions vary for the different categories of members. (Znaniecki, 1939, p. 809)

This definition has the virtue of handling with ease some situations which have presented difficulty to earlier schemes. For example, one may be asked how, in terms of definition, it is possible to handle four persons playing a tennis doubles match. Is this one functional group or two? It is possible to say that all have a common purpose to reach a definitive end of their struggle On the other hand, it is clear that here there are, at the same time, one group and two. There can be no doubt that there is interaction among all four and all are utilized in the satisfaction of some needs of each. However, both quantitatively and qualitatively the interaction between partners differs from that between opponents. Here, at least, lies a basis for differentiation of the groups which will be dependent upon the purpose for which the groups are being studied or defined But the possibility, provided by our definition, of differentiation in terms of goal adds greatly to one's comfort in dealing with the situation.

The problem of unitary versus segmentary groups which is raised here is not of purely academic interest. Stice has drawn the writer's attention to just such a problem in the study of air crews in which, for some purposes, it seems profitable to consider an entire crew as a single group, while, for other purposes, the crew is to be seen as a number of segmentary groups, e g., as a flight team, a bombing team, a defensive team, and so on. As is usual in real-life situations, this question is complicated by the fact that these teams overlap in membership and a crew in action may be seen as a number of segmentary groups which are constantly forming and reforming as the external situation changes Similar problems are common in the industrial setting. The now-famous Bank-Wiring Observation Room of the Hawthorne Western Electric Plant may best be regarded as a unitary group for the study of some of its behavior, but it can only be fully understood when the clique (segmentary group) formation within it has been observed and examined.

Of the air-crew segmentary groups or teams Stice, in a personal communication, writes "They are groups that interact with other members of the aggregation certainly, and their members may at other times —or even simultaneously but for other purposes — be a part of others of these overlapping groups. As far as definition and experimental treatment are concerned, the advantage here is that once a goal has been established the group can be reasonably well defined, and its organization and customs can be described with some reliability."

Group as a quantitative concept. One final characteristic of our definition of a functional group is that it is basically a quantitative concept, since interaction or interdependence is a quantitative variable. Furthermore, investment of individual energies in the group is not an all-or-nothing phenomenon, however difficult it may be to measure this variable with currently available techniques. French (1944) and others have pointed out that definition in terms of interdependence implies other relationships also. For example, for French identification of members with the group is implied and this, in turn,

is a quantitative variable affording a valuable index to degree of group development or group unity. Further, Cooley's "we-feeling" is a quantitative concept, since estimates of its strength may be obtained. In like fashion, many other indices of group quality or strength have been developed (cf. Homans and Riecken in Chapter 22)

Organization Some writers emphasize the fact that the emergence of leadership is synonymous with differentiation of individual roles within the group And a group in which the members are differentiated as to their responsibilities for the task of approaching the group goal is commonly called an *organization* Znaniecki (1945) has pointed out that it may frequently be difficult to determine whether any particular collection of organisms constitutes a group and that it may also be difficult at times to determine whether a particular group can be regarded as an organization. This is especially true of work with traditionless laboratory groups In these groups the emergence of structure or organization can be observed, as can the relations of influence or leadership among the members. It is questionable, however, to refer to these groups as organizations, although they might be regarded as incipient organizations. This is the position of Stogdill, who writes

> A group may or may not have leaders If it does have leaders, it is an organization, for at least some of the members are thereby differentiated from the others as to responsibility, or role expectation in relation to some common purpose. The members of a group may or may not have mutual responsibilities for a common task. If the members do have differentiated responsibilities in relation to common goals then the group is an organization — a particular kind of group The continued presence of leaders and of responsibility differentiations in relation to group goals are indicative of organization It may not always be easy to determine the exact point at which a group emerges into an organization (Stogdill, 1950, p. 3)

Despite the advantages Stogdill sees in discussing leadership only as a facet of organization, this represents an unnecessary restriction on the concept of leadership and has no operational advantage in research. If it is recognized that groups vary with respect to a factor or dimension of organization, measurements of organization may be made and related to observations of leader behavior. It has long been claimed, as Sherif has said so clearly (1948), that all groups are characterized to some degree by hierarchical structure or organization. As Znaniecki (1945) indicates, however, this can be realized only in a lasting "social group" or "association" In laboratory groups no persistent structure may be present during the early hours of common action but, with respect to any particular task, there is differentiation of roles or "structure" which may be regarded, as suggested above, as incipient organization Organization, of course, may take many more complex forms than the differentiation of an influence hierarchy. But there can be no real objection to talking about organization leadership rather than group leadership if one so desires, and this is frequently done

DEFINITION OF THE LEADER

Whenever two or more persons interact in the pursuit of a common goal, the relation of leadership and followership soon becomes evident. It is equally evident, however, that this relationship does not necessarily take, persistently and continuously, the same direction. Everybody has known friendships in which one of the friends was persistently the leader while the other willingly followed. But equally, one can recall friendships in which now one friend and then the other assumed the role of leader. This same reversibility of the leader-follower relation is frequently observable in the marital group. Indeed, every group will differ from every other in the details of this relation, and these differences will depend upon individual and relative differences in the endowment of members of the group as well as upon the cultural tradition within which the group is functioning Thus a husband who is, by profession, an interior decorator may assume leadership in the decoration of his family home The working wife whose income exceeds that of her husband may determine the residential location of the family. But paradoxically the culture confers the possibility of leadership, in each of these cases, upon that group member who would ordinarily be a follower. A moment's thought about the relative freedom to lead enjoyed by the American, the British, the German, and the Arabian wife will serve to illustrate clearly this fact.

The leader as an individual in a given office The "popular" answer to the question "Who is the leader?" suggests that whoever occupies a leader's office is a leader. Shartle and Stogdill (1952) adopted this as an initial definition of the leader to guide the Ohio State University studies in Naval Leadership. They have begun by assuming that "persons who occupy positions which are commonly presumed to demand

leadership ability are proper and likely subjects for the study of leadership" (p 6). Such a convenient starting point for their investigations is made possible largely by the high degree of organization in the groups they proposed to study. When studies are made in less structured, traditionless groups there often is no leader office upon which attention can be focused. However naive it may be to assert that the leader of an army is its general, of a team its captain, of a business organization its president, and so on, it cannot be denied that this is one place to start the study of leadership. As analysis proceeds, however, it becomes clear that such a definition of the leader embraces so wide a variety of relationships as to be of little scientific value More analytic definitions of the leader must be employed.

The leader as focus for the behavior of group members A quite different approach, based on the work of Freud (1922), is made by Redl (1942). If leadership is regarded as a relation, then the types of leadership generally identified should be recognizable as expressions of different kinds of relationship. Redl introduces the concept of "central person" and distinguishes ten different types of emotional relationship between the central person and other group members. Redl uses the term "leader" for only one type of relation, giving different names to the other types. The term leader is restricted to that relationship which is characterized by love of the members for the central person, leading to incorporation of the personality of the central person in the ego ideal of the followers, i e., they wish to become the kind of person he is. This definition is far removed from our usual conception of the leader, as represented by Stogdill and Shartle, and even from the analytic conceptions we shall next discuss. It is a highly restrictive definition of the leader, but it does use as its differentiating characteristic the nature of the emotional relationship between the leader and other group members and, in so doing, provides a model worthy of much more detailed attention than it has yet received.

Definition of the leader in terms of sociometric choice Sociometry, a technique devised by Moreno (1934) for revealing the feeling or preference relationships among the members of a human group, was early shown by Jennings (1943) to be an effective instrument for the study of the leadership structure of small groups. This technique, and its many modern derivatives, has been described in detail elsewhere (Chapter 11). In this discussion we wish only to point to this method of identifying the leader of a group, and to indicate its applicability to all primary groups from traditionless laboratory small groups to military and business organizations There is good evidence that members of a group can identify reliably those persons who exert most influence upon them and that leaders defined this way are closely correlated with leaders identified by external observers and by other criteria. Gibb (1950) has reported that when participants in traditionless groups of ten were asked a question implying selection of co-workers on the basis of "influence," though the word influence was not used, the correlation of these choices with observer ratings of "leadership" was approximately 0 80 And when participants were asked directly whom they regarded as having been leaders, the correlation with observer ratings was again 0 80 Furthermore, Wherry and Fryer (1949) found that Signal Corps officer cadets were able, at the end of one month, to identify leadership to a degree equalled by officers only after four months of observation.

A word of warning concerning the sociometric definition of the leader is in order. There is now abundant evidence (Gibb, 1950, Carter, 1952; Bales, 1953) that the sociometric question asked, or the nature of the sociometric criterion, makes a very considerable difference. For example, studying experimental groups of ten men each, and using ratings made by two trained observers as a criterion of leadership, Gibb (1950) found a correlation coefficient of approximately 0 45 between this criterion and responses to a sociotelic question calling for identification of group members with whom respondents would like to participate further in similar activities. Similarly, this leadership criterion and responses to a psychetelic question asking for the identification of liked co-workers showed a correlation of approximately 0.42. Socio-centrality is not necessarily leadership.

These findings have been confirmed and extended by Bales (1953) using a somewhat similar technique. He had participants in small group discussions answer four sociometric questions relating to (a) contributing the best ideas, (b) guiding the discussion, (c) likes, and (d) dislikes. To these data Bales has added observations and analyses of initiation of interaction. And finally, participants indicated whom they regarded as "the leaders." In the first place, it is of interest that Bales finds a direct positive relation betwen basic initiating rank and votes for "best ideas" and "guidance" except that the second man is unaccountably low. Furthermore, this relation does not hold for basic initiating rank and "likes." Here the

first man is low while the second man is best liked, thus suggesting that the man who is participating most heavily is losing likes and provoking dislike.

Secondly, the definition of the leader, in terms of sociometric choice, is further advanced by Bales' finding that the "best ideas" and "guidance" roles are most closely associated in the participants' minds with leadership, and that the "best liked" role is *least* closely associated with leadership.

Bales has also demonstrated that there is a change over time in the percentage of cases in which the best liked man plays "leader" roles. Whereas the "like" votes coincided with those for "best ideas" and "guidance" to the extent of 64 percent and 41 percent respectively in the first meeting, these figures had fallen to 11 percent and 18 percent respectively by the fourth meeting. As Bales points out (p. 156) this is a striking indication of incompatibility of these two roles.

The leader as one who exercises influence over others. The empirical investigation referred to above (Gibb, 1950) provides strong support for the notion that a leader may be reliably defined in terms of the extent of his influence within a group. In the scientific literature this form of definition has been employed frequently The O.S.S. Assessment Staff reports:

> There was nothing novel in our conception of leadership. We thought of it as a man's ability to take the initiative in social situations, to plan and organize action, and in so doing to evoke cooperation (1948, p. 301)

Seeman and Morris in an early report of the Ohio State University leadership series say:

> One tentatively adoptable definition of leadership emphasizes its influence aspect· leadership acts are acts by persons which influence other persons in a shared direction. This definition implies a positional relationship between the "leader" and other persons A leader position is defined in terms of relative status in an influence hierarchy (or relative degrees of influence). (Seeman and Morris, 1950, p. 1)

Pigors' (1935, p. 12) definition is still, however, the most satisfactory. He indicated that leadership is a concept applied to the personality-environment relation to describe the situation when a personality is so placed in the environment that his "will, feeling, and insight direct and control others in the pursuit of a common cause."

Leadership and headship differentiated. In order to define the leader as that group member who exercises most influence over his fellows or, even better, to define leaders (plural) as those members of a group who influence their fellows more than they are influenced by them, it is necessary to qualify "influence" by insisting that the term leadership applies only when this is voluntarily accepted or when it is in "a shared direction." The relation between master and slave, teacher and pupil, and frequently that between officer and men is characterized by a type of unidirectional influence which few people would want to call leadership. There is almost general agreement in the literature of the last few years that leadership is to be distinguished, by definition, from domination or headship The principal differentia are these· (i) Domination or headship is maintained through an organized system and not by the spontaneous recognition, by fellow group members, of the individual's contribution to group goals. (ii) The group goal is chosen by the head man in line with his interests and is not internally determined by the group itself. (iii) In the domination or headship relation there is little or no sense of shared feeling or joint action in the pursuit of the given goal. (iv) There is in the dominance relation a wide social gap between the group members and the head, who strives to maintain this social distance as an aid to his coercion of the group. (v) Most basically, these two forms of influence differ with respect to the *source* of the authority which is exercised. The leader's authority is spontaneously accorded him by his fellow group members, the followers. The authority of the head derives from some extra-group power which he has over the members of the group, who cannot meaningfully be called his followers. They accept his domination, on pain of punishment, rather than follow. The business executive is an excellent example of a head exercising authority derived from his position in an organization through membership in which the workers, his subordinates, satisfy many strong needs. They obey his commands and accept his domination because this is part of their duty as organization members and to reject him would be to discontinue membership, with all the punishments that would involve.

The intragroup relations differentiated here as headship and leadership are not, of course, mutually exclusive; but neither are they coincident, as so much of popular thinking suggests. Many heads are recognized by their subordinates as making very positive contributions to group progress and are therefore accorded willing cooperation and, through it, leadership status. In fact, as Hartley and Hartley (1952) have pointed

out, the military forces of the United States and large industrial organizations in this country, which in the past have functioned almost exclusively on a headship basis, have expressed a need for much more leadership in intraorganization relations

The leader defined in terms of influence upon syntality It was suggested above that the essence of the leader role is to be found in voluntary conferment of authority by followers. It was also indicated that such leadership is bestowed only on persons who appear to contribute to group progress. In other words, the leader's influence upon individual group members is secondary to his influence upon total group locomotion It is argued by Cattell (1951) that the existence of a leader is detectable from an examination either of internal group relations, i e, structure, or of the effectiveness of total performance of the group as a group, i e, syntality On this basis, he has proposed that we define a leader as "a person who has a demonstrable influence upon group syntality", and that we measure leadership "by the magnitude of the syntality change (from the mean) produced by that person" (1951, p 175) This definition of the leader has a number of important implications. There is a variety of independent dimensions of syntality, as we shall indicate later, and change may occur in any or all of these. Furthermore, change may be in the direction of either increase or decrease. From the point of view of over-all evaluation leader effect might be either positive or negative We cannot talk of good or bad leadership because whether an increase or decrease along one of the syntal dimensions is to be considered good or bad will depend upon the extent and direction with which that factor weights various actual performances for which we already have values. Nevertheless, this concept of the leader will not take us in a completely different direction from that of the preceding category because, as Cattell points out.

> There are certain putative dimensions such as integration, cohesiveness, viscidity which must reach acceptable values for the group to function and survive as a group *at all,* and presumably any leader who can increase these is good . . . Apart from these possible exceptions, it is perfectly safe to speak of a leader only as being good or bad *for some specific performance.* (1951, p. 175)

Far more basic is the fact that this type of definition ignores the nature of the relationships between leader and followers. By such a definition our distinction between headship and leadership would disappear, except insofar as one could define these as subtypes of leadership. Similarly, patriarchy, tyranny, socio-centrality and many other forms of interpersonal relations would have to be regarded as leadership subtypes Within psychological and sociological literature, we have essentially two concepts which are both designated by the term leader The one is the all-inclusive concept indicated by Cattell's definition. The other, and more frequently found, is more restricted. The group member confers leadership status only upon *some* individuals who exert influence upon group syntality, namely, those who are perceived to be moving the group in the direction of a goal which is a group goal because it has a potentially satisfying quality for some needs of all members It is not true to say that the existence of a leader (in this more restricted sense) is detectable from, or definable in terms of, the effectiveness of group performance. On the other hand, if interpersonal relations of influence constitute leadership, then we may accept Cattell's suggestion that one important index of the quality of this leadership is derived from observations of the effectiveness of group or organization performance And such a conception does have far-reaching research implications.

The leader as one who engages in leadership behaviors. Because of the difficulties involved in using any of the above definitional schemes to guide research in leadership, Carter (1952) and Hemphill (1952) have recently proposed the definition of leadership in terms of leadership acts. Of these Hemphill's proposals are the more rigorous and we may confine our attention to them. He suggests (1952, p. 15) that "To lead is to engage in an act which initiates a structure in the interaction of others as part of the process of solving a mutual problem" Leaders are then to be identified by the relative frequency with which they engage in such acts. This formulation recognizes the fact that groups develop leadership hierarchies and that differentiation between successive levels is in terms of frequency of leading. Only rarely, and then in highly structured organizations, can we identify "the leader." Most groups have many leaders. As Carter says (1953, p. 5): ". . . in actual behavior, the leaders or the followers fulfill their stereotyped roles only in the statistical sense." And to quote Hemphill again (1952, p. 10): "A leadership role is a differentiation of structure-in-interaction in which the point of reference of the differentiation is frequent leadership acts." In the case of Hemphill's definition the controversial element will prob-

ably be the differentium, "initiation of structure in the interaction of others" This concept Hemphill (1952, p. 12) defines as "a consistency in the activities occurring during interaction which would permit the prediction of future interaction activity with an accuracy exceeding chance." While this defines a leader in terms of his intragroup behavior, it again produces a definition which embraces a variety of relations from dominance to socio-centrality. This is simply a more restricted form of Cattell's definition insofar as "syntality" is "that which enables one to predict future performance of a group" and, therefore, structure in interaction can be but one facet of syntality.

Focused versus distributed leadership. There is one important advantage in conceiving the leader in terms of the frequency of his performance of leadership acts or functions. Leadership is probably best conceived as a group quality, as a set of functions which must be carried out by the group. This concept of "distributed leadership" is an important one If there are leadership functions which must be performed in any group, and if these functions may be "focused" or "distributed," then leaders will be identifiable both in terms of the frequency and in terms of the multiplicity or pattern of functions performed. Such a precursory conception appears to accord well with the needs of contemporary research in this area Heads may be distinguished from leaders in terms of the functions they usually or frequently assume. Similarly, differentiation between all types of influential persons may be possible in terms of the pattern of functional roles characteristic of each.

Whose behavior shall we observe in drawing up role prescriptions of leadership? If we observe all the behavior of all of the members, as seems best to do, by what criteria shall we differentiate leaders? Or perhaps the concept of the leader will be of no further value to us when we have differentiated such roles as those of the initiator, energizer, harmonizer, expediter, and the like. To shift the problem of definition from that of defining the leader to that of defining leader behavior or leadership acts has advantages for particular researches and for particular systematic psychologies, but it offers no solution to the definitional problem. Whether we couch our definitions in terms of the leader or the leadership act it is, of course, leader behavior with which the psychologist is concerned.

Description and Analysis of Leader Behavior

The definitions discussed in the preceding section leave open the question of the determinants of leader behavior This matter will be taken up in our later discussion of theories of leadership At this point it is sufficient to remind the reader that for some quarter of a century between world wars, psychologists gave a large part of their attention to problems of personality and the measurement of personality. What interest there was in the description of leader behavior during this period was caught up in this tide, and almost all of the work reported took the form of a search for traits of personality which were supposed to characterize "the leader."

THE SEARCH FOR LEADERSHIP TRAITS

Widely varying groups were studied in the course of this search, often in a single investigation. Leaders were identified among nursery-school children, in the church, in prison, and in every conceivable group They and their "followers" were subjected to newly developed personality test techniques and significant differences were avidly sought. An excellent survey of these studies has been made by Stogdill (1948) who also points out that "there is no assurance that the investigator who analyzes the biographies of great men is studying the same kind of leadership behavior that is revealed through observation of children's leadership activities in group situations" (1948, p 36) However, it is of considerable interest in examining Stogdill's review to observe that some studies employing very different groups and methods yield remarkably similar results It is of equal interest to find that some factors appear only in certain age and social groups and only when certain methods are employed. Stogdill's work has made it possible for us to consider some of the more commonly claimed "leadership traits"

Physical and constitutional factors. (a) *Height.* Stogdill's review indicates that nine studies have found leaders to be taller, two have found them shorter, while Caldwell and Wellman (1926) suggest that the relation varies with the type of leadership activity. The latter investigators found that girl leaders were about average in height, that class presidents and athletic captains were the tallest of boy leaders, while magazine representatives were among the shortest in the classes. Gowin (1915) found

that executives in insurance companies were taller than policyholders, that bishops were taller than clergymen, that university presidents were taller than college presidents, that sales managers were taller than salesmen, and that railway presidents were taller than station agents Other findings of this kind have led to the suggestion that tallness gives an individual the advantage of conspicuousness, although, of course, anyone can name many famous leaders whose shortness of stature would immediately cast doubt upon any suggestion that tallness is a general trait of leaders It seems that when height is a significant factor in the achievement of leadership status it is so as a result of its correlation with other factors which, in some situations, are significant for the assumption of the leadership role

(b) *Weight* Both the facts and conclusions concerning the factor of weight are similar to those concerning height. Some studies (e.g , Bellingrath, Gowin, Partridge, Zeleny) indicate that leaders are bigger and heavier Animal studies (Maslow, Schelderup-Ebbe, Winslow) have sometimes led to this same conclusion To the extent that the leadership role is held by the strongest and most powerful member of the group, and to the extent that the group goal is one of primitive survival involving bodily fights with members of other groups, this is quite understandable But it is equally understandable that Hunter and Jordan (1939) should find their leaders in the activities of school children to be significantly lighter than nonleaders, since these group activities do not necessarily place a premium upon physical power and athletic prowess.

(c) *Physique, energy, health.* Other studies have suggested low positive correlations of physique with accession to positions of leadership, although once again the nature of the group activity requires specification. Bellingrath (1930) suggested that leaders have better health than nonleaders, but Hunter and Jordan (1939) fail to confirm this difference for their particular groups. Some writers have indicated that leaders are characterized by a high rate of energy output. The leader must have energy of one kind or another, for energy is required in pursuing any group goal.

(d) *Appearance.* Several studies have investigated the appearance, dress, etc., of leaders and have, in general, agreed in suggesting a possible relationship between appearance and holding a leadership role. Thus, Partridge (1934), who (significantly) studied Boy Scout leaders, found a correlation of .81 between appearance ratings and leadership status. Ackerson (1942) found that slovenliness and leading others in misconduct correlated plus 32 for delinquent boys and plus 31 for delinquent girls Tryon (1939) has suggested that appearance is more closely associated with leadership in boys than in girls, but Partridge's results suggest that it is rather a matter of the group's values in this regard Dunkerley (1949) confirms this idea by finding that female students chosen as leaders in social activities differed significantly from nonleaders in appearance and dress, but that those chosen for leadership in intellectual and religious activities did not differ significantly from nonleaders

Intelligence In the study of leadership, as in the study of other areas of behavior, both psychologists and laymen have been supremely aware of differences in intelligence Investigations of the relation between leadership and general intelligence are numerous, and with few exceptions they agree in finding that leaders are superior to nonleaders But even here a few studies have tended to show that the essential matter is one of relationship to the group situation and of the leaders' contribution to the group goal Since so much of behavior, both individual and group, involves problem solving, however, and since it is one of the conditions of the emergence of leadership that there must be a group problem, it is not surprising that this trait seems generally to be a contributing factor in leadership. That the importance of this factor is purely a question of general intelligence in problem solving cannot be asserted lightly, however. Cattell (1946) has described, as one of his twelve primary source traits of personality, a factor of *general mental capacity* and its personality associates, the nature of which is indicated by such adjectives as intelligent, wise, emotionally mature, reliable, independent, thoughtful, deliberate, not frivolous, persevering, painstaking, mentally alert and vigorous, conscientious, having intellectual and wide interests, etc. Recent work by Cattell and Stice (1953), in which leaders were identified by a variety of different criteria, showed that on all leadership selection methods leaders are higher than nonleaders, but on one criterion only — total number of leadership acts — was there a statistically significant difference between leaders and nonleaders on this factor. It would seem safe to conclude that this is not the "general leadership trait" which some have so fervently sought.

Hunter and Jordan (1939) found college leaders scored 20.5 points higher on the American Council Psychological Examination than a control group of nonleaders. Gibb (1947) found

that preselected candidates presented to a military officer selection board were significantly superior in intelligence to the army standard sample and to the estimated civil population Candidates actually selected by the board for officer training were still further differentiated with respect to intelligence test scores. Less than one percent of the selectees fell below the estimated population mean.

As against the above findings Webb (1915), using a group of 200 English college boys, obtained a negligible correlation between scores on an intelligence test and leadership ratings given by students and supervisors. If persuasive or dominant leaders and headmen are considered, we are not always impressed with the quality of intelligence they manifest. In positions where information and mental skill are necessary the intelligent person achieves leadership, but in many groups pursuing routine, mechanical, practical activities, intelligence is not highly valued.

In general, we conclude that leaders are more intelligent than followers, but one of the most interesting results emerging from studies in this area is the discovery that they must not exceed the followers by too large a margin, for great discrepancies between the intelligence of leaders and followers militates against the emergence of the leadership relation, presumably because such wide discrepancies render improbable the unified purpose of the individuals concerned The optimum deviation, as found by Hollingworth (1942, p. 287), is expressed in her statement: "Generally a leadership pattern will not form or will break up when a discrepancy of more than 30 points of I.Q. comes to exist between the leader and the led." But this is among groups of children. Terman's findings on the intelligence of past geniuses, particularly of revolutionary and conservative statesmen, would seem to indicate that with adults also, in very large groups, a superiority of more than 1.5 to 2 0 standard deviations in the leader creates such difficulties that he tends to forsake political for cultural leadership.

The fact that, in general, individuals of exceptionally high intelligence do not so readily become leaders suggests remoteness of their interests and values from those of the crowd. The evidence suggests that every increment of intelligence means wiser government, but that the crowd prefers to be ill-governed by people it can understand.

Self-confidence. To be a leader in any situation, an individual group member must appear to make positive contributions to group locomotion. There can be little doubt but that his self-confidence and self-assurance contribute to this kind of valuation of him. Thus it is to be expected that self-confidence will bear a positive relation to leadership Cowley (1928) found self-confidence to be one of the factors possessed in common by his three widely different types of leaders. Richardson and Hanawalt (1944) found college and adult leaders to make higher scores on the Bernreuter self-confidence scale than did nonleaders, but Hunter and Jordan (1939) found no difference between college leaders and nonleaders on the same measure Cox (1926) found that great leaders are characterized by such traits as self-confidence, self-assurance, and self-knowledge, and further, that they exhibited a marked degree of dominance-need, eagerness for admiration, desire for limelight, etc. Correlation coefficients as high as .59 have been reported by Drake (1944) between ratings of self-confidence and leadership status, while Bellingrath (1930) reports a correlation of 58 between teacher ratings of self-confidence and of leadership for 224 boys For potential military leaders, Gibb (1947) reports an estimated correlation of .60 between interviewer ratings of self-confidence and selection by a specially functioning board.

The general implication of these findings is that leaders, more or less consistently, rate higher than followers in self-confidence or self-assurance. A person who believes in himself gives the impression that he has the skill, power, or ability which will enable him to solve the problem in hand.

This is one of those personality traits which makes it abundantly clear that individual personality cannot be left out of the leadership picture. Leadership cannot be exclusively a function of the situation as it is seen by an independent observer, for individual differences clearly affect the social perceptions of some individuals by others, and consequently play an important part in giving structure to the situation for those who are a part of it.

Sociability. Goodenough (1930), correlating observer ratings of 33 children, found a correlation coefficient of .98 between sociability (social participation) and leadership. It is to be noted, however, that these were, as she herself points out, practically the same trait. Social participation was to be rated upon a continuum from unoccupied solitariness to organized co-operative activity. Clearly, no leader could possibly be solitary, and with this definition of the trait, the correlation was to have been expected.

When sociability is differently defined, however, quite different results may be found. Thus

Richardson and Hanawalt (1944), investigating the relationship of Bernreuter personality measures to leadership for both college students and male adults, could find no evidence for differences between the leaders and the nonleaders in sociability Gibb (1947), on the other hand, defining a solitariness-sociability trait to be as much like Flanagan's factor as possible, found interviewer ratings on this trait significantly correlated with selection for military leadership training The Cattell 16 Personality Factor Questionnaire (1950) contains a scale for factor *H* which is characterized by sociability, adventurousness, interest in the opposite sex, and warm emotional response. The Cattell and Stice data (1953) reveal this factor to be the most consistent in differentiating leaders from nonleaders, whatever the criterion for the identification of leaders.

Still other studies lend support, thus Moore (1932) and Newcomb (1943) report friendliness and social skills respectively as factors which distinguish leaders from followers. Cox (1926) also found that great leaders were above average in fondness for companionship and social gatherings.

Will (initiative, persistence, ambition) Many investigators have reported significant correlations, ranging as high as .70, between "will power and perseverance" and leadership. Hanawalt, Hamilton, and Morris (1943) found the level of aspiration for 20 college women leaders significantly higher than that of a comparable sample of 20 college women nonleaders Stogdill (1948) reports that a number of investigators have found leaders to rate high in application and industry

A recent study of the business executive by W. E. Henry (1949) may be included here, since the majority of his experimental group were in "businesses of moderately loose organizational structure in which cooperation and teamwork are valued and in which relative independence of action is stressed . . ." Henry's findings suggest that high drive and achievement desire, strong aspiration to upward mobility, decisiveness, a strong sense of self-identity, and an essentially active, striving personality characterize these executives. In many respects this picture of the leader is confirmed by Cattell and Stice (1953). On measures of Cattell's factor *G*, defined by such traits as determination, responsibility, maturity, conscientiousness, and self-control, and named "superego strength," they found leaders consistently superior to nonleaders. And even more directly, similar results were obtained from scale Q_3, said to measure will control and character stability.

One is constrained to point out here that these findings do not, in fact, support the frequently heard contention that leaders are people who force themselves by repeated efforts into positions of leadership. Rather, an interpretation more consistent with the data would be that this trait of "will" and "persistence" is highly prized by groups which, in facing problems, have previously met failure and rebuff.

Dominance The presence of a dominance need in one or more of a group's members is thought by Krech and Crutchfield (1948) to be an indispensable condition for the emergence of leadership. It is their claim that.

> Like any member, the leader seeks achievement of the group goal and seeks also the satisfaction of personal or accessory needs But what marks off the leader from the nonleader is the urgency of certain kinds of needs that are especially well served by the leadership role Such needs are those of dominance, prestige and power (p. 436)
>
> Other things being equal, those persons who have insistent needs for dominance, power, and prestige may be expected to have higher potentiality for leadership. And this is particularly true to the extent to which these persons have developed personalities that are characterized by certain ways of satisfying these needs, viz, in dominating interpersonal relations with others (p. 437)

This view seems plausible, and it does have some support from empirical studies. Hunter and Jordan's (1939) work with 82 college leaders compared with nonleaders used the Bernreuter test and found leaders' scores significantly more dominant than those of nonleaders. Using the same test, Richardson and Hanawalt (1943, 1944) investigated the scores of both college and adult leaders and found (a) that "college leadership is more closely tied up with Dominance than with any of the other scales under discussion," and (b) that adult leaders "differ most from the nonleaders on the Adjustment-Scales and in Dominance" (1943, p. 266).

Jennings (1943), by contrast, finds that dominant, aggressive people tend to be rejected or isolated rather than chosen and given the role of leader, but it is to be remembered that her subjects were some 400 girls in an institution to which they had been committed by a Children's Court, and that the ratings of dominance and aggression were made by house mothers as *complaints* against the girl, and were based upon such behavior as "getting another individual to submit to wait on her, make her bed,

do her 'commands,' give in to her suggestions when doing a common task with another, and the like." This is quite a far cry from simply answering "yes" or "no" to the questions: "Would you feel self-conscious if you had to volunteer an idea to start a discussion among a group of people?" "Have you ever organized any clubs, teams, or other groups on your own initiative?" "Do you keep in the background at social functions?" "Do you lack self-confidence?" These are, in fact, four of Bernreuter's ten most discriminative items on the Dominance scale. In the light of difficulties of definition, we are not able to say that such findings as those of Richardson and Hanawalt and those of Jennings are contradictory.

A similar comment applies to the study made by Hanfmann (1935) of dominance in a group of ten five-year-old boys Using a paired performance method, she determined a rank order of dominance and then asked the children with whom they most preferred to play. Eight of the ten named either *C* or *D*, who were third and fourth in the dominance hierarchy, and did not name *A* or *B*, the first and second. But again the details alter the story. Both *C* and *D* used cooperative methods and they, in fact, were able to lead *A*. On the other hand, *B*'s methods were those of a "little gangster," while *A*'s were wholly destructive. Thus this evidence cannot wholly contradict the suggestion of correlation between dominance and leadership, because the leaders *C* and *D* are in some measure dominant, and because the criterion here is that of liking or preference.

On the other hand, Stogdill's survey also included studies in which no differences could be found between leaders and nonleaders in this respect. Most recently Cattell and Stice (1953) have found that by none of the operational definitions of leadership employed in their study was there any significant differentiation between leaders and nonleaders in terms of factor *E* (dominance). It is true that the leaders invariably made the higher (more dominant) score, but in only one case does this even approach statistical significance. Perhaps the best that may be said at the moment is that there is no clear evidence of the dependence of leadership upon dominance-need.

Surgency. The personality trait of surgency is defined in terms of talkativeness, cheerfulness, geniality, enthusiasm, expressiveness, alertness, and originality. Surgency-desurgency thus bears some resemblance to extraversion-introversion, and it is in studies of this latter trait that some of the evidence for the relation of surgency to leadership is to be found.

Goodenough (1930), in her study of the behavior of young children, reported a correlation of plus .59 for extraversion with leadership. Other correlations in her study which throw light on the surgency pattern are talkativeness with leadership, plus .55, and amount of laughter with leadership, plus 33 Some work of Fauquier and Gilchrist (1942) has suggested that leaders among institutionalized delinquent boys were more impulsive, more excitable, more extraverted and secure.

Richardson and Hanawalt (1943) have reported that on the introversion scale of the Bernreuter personality inventory, college leaders were reliably lower than Bernreuter's published college norms and the difference between women leaders and nonleaders pointed in the same direction. Results for adult leaders (1944) were similar though rather less significant The Bernreuter introversion scores, however, failed to differentiate college leaders from nonleaders in Hunter and Jordan's study (1939). Bellingrath (1930) used an introversion questionnaire and found that responses did not differentiate leaders from nonleaders, though there were some few individual items which would do so The study by Caldwell and Wellman (1926) is also of interest in this connection, and may, again, give some clue to the apparent discrepancies among the various studies. They report that "extraversion among the girls was most marked in the science-club chairmen, student council members and magazine staff members. In all types of leadership, except athletics, the girls were ranked as extraverts. The boys tended to be more extravertive than introvertive, but not to such a marked degree as the girls. The (boy) magazine staff representatives were notable exceptions, ranking as decided introverts" (1926, p. 13). Thurstone (1944) has expressed his surprise in finding that campus leaders were inferior in word fluency (an accepted index of surgency), which he had expected to be high for such a group. But a second study reported in the same publication found that successful administrators had slightly higher scores in the Guilford personality schedule for Thinking Introversion.

Again, the Cattell and Stice data provide food for thought. They find no significant differences, on the scale (F) for surgency-desurgency, between leaders and nonleaders, when leaders are defined in terms of observer identification of total participation. However, when member choices are used as criteria for leadership, the picture changes. In this case, there is a positive, though not significant, relation between surgency and choice. And finally, when

actual overt election to leadership becomes the criterion, the relation with surgency is both positive and highly significant. The implications of these data are highly important. Could it be that we may predict a surgent personality for the formally recognized and elected leader, while such is not the case with "powers behind the throne"? If the answer to either of these questions is affirmative, we are faced with far-reaching implications for the democratic processes of leadership succession We shall return to this problem in a later section of this chapter

Situational relativity of traits In review, there are indications that certain traits, such as intelligence, surgency, dominance, self-confidence, and social participation are frequently found to characterize leaders of various types in various situations But, in every instance, the relation of the trait to the leadership role is more meaningful if consideration is given to the detailed nature of the role. A person does not become a leader by virtue of his possession of any one particular pattern of personality traits, but the pattern of personal characteristics of the leader must bear some relevant relationship to the present characteristics, activities, and goals of the group of which he is leader. "Thus, leadership must be conceived in terms of the interaction of variables which are in constant flux and change" (Stogdill, 1948, p. 64). A group member achieves the status of group leader for the time being in proportion as he participates in group activities and demonstrates his capacity for contributing more than others to the group achievement of the group goal. It is known that the situation is especially liable to alter through changes in goals, changes in morale, changes in interpersonal relations, the entrance of new members and the departure of others, pressures from other groups, and so on. Since individual personality characteristics are by contrast stable, it is to be expected that group leadership may, if unrestricted by the conscious hierarchical structuration of the group, pass from one member to another. Some of the researches mentioned above have given experimental support to this conclusion. Further confirmation is to be found in the observations of groups. A more detailed experimental test of this interactional hypothesis has yet to be made.

Summary statement of the relation between personality traits and leadership. In the study of the relation between personality traits and leadership, two things seem to be well established at this time. In the first place, reviews such as that of Stogdill reveal that numerous studies of the personalities of leaders have failed to find any consistent pattern of traits which characterize leaders. The traits of leadership are any or all of those personality traits which, *in any particular situation,* enable an individual to (i) contribute significantly to group locomotion in the direction of a recognized goal, and (ii) be perceived as doing so by fellow group members.

Secondly, there is abundant evidence that member personalities do make a difference to group performance, and there is every reason to believe that they do affect that aspect of the group's behavior to which the leadership concept applies. Both Cattell (1948) and Carter (1953) find a need for personality variables in the description of groups.

It may be suggested that the failure of the many researches to establish a definitive relation between personality and leadership may be due to one or more of three factors. (1) Personality description and measurement themselves are not yet adequate. Reliable means of measuring basic personality dimensions are still needed. It may be that in leadership researches the really significant aspects of personality have not yet been investigated. (2) The groups studied have usually been markedly different from one another and this may have had the effect of concealing a relation between personality and the exercise of leadership within a more homogeneous set of groups or family of situations. (3) Leadership itself is known to be a complex, and probably not consistent, pattern of functional roles. There could be a relation between personality and the taking of particular roles which is not reflected in a study relating personality to a variable pattern of roles.

THE EMPIRICAL DETERMINATION OF DIMENSIONS OF LEADER BEHAVIOR

The psychological literature contains many analyses which have attempted to describe what it is that leaders actually do. It has been suggested that they exercise authority, act in such a way as to reveal a knowledge of human nature, act decisively, and so on. The United States Army has adopted 11 leadership principles, the results of an analysis of outstanding leadership displayed by successful personalities, both military and civilian (J. H. Carter, 1952). Among these are listed behaviors which may be rephrased and reorganized in such terms as:

1. Performing professional and technical specialty.
2. Knowing subordinates and showing consideration for them.

3. Keeping channels of communication open.
4. Accepting personal responsibility and setting an example
5. Initiating and directing action.
6. Training men as a team.
7. Making decisions.

There are, too, a number of rather more carefully and empirically designed researches in this area. Jenkins (1948) had members of air squadrons identify persons with whom they preferred to fly and to say why they chose as they did. He was able to list a number of behaviors which influenced this kind of choice Roff (1950b) had recently returned flying officers complete rating scales relating to effectiveness in combat leadership to throw light upon the importance of different types of behavior in the command situation He has reported a number of behaviors which differentiate significantly between the best and the poorest leaders. The American Institute for Research has attempted to discover what are the *critical requirements* of an Air Force officer's job (Preston, 1948). In this study 640 Air Force officers, whose ranks and jobs differed widely, were interviewed and each was asked to think of a definite situation in which he had observed an officer behave either effectively or ineffectively. The informant was then asked to describe the specific behavior that was effective or ineffective in the particular situation. This procedure yielded a very large number of incidents of both effective and ineffective officer behavior. These incidents were then classified, subjectively, into the following general areas of behavior

1. Supervising personnel.
2. Planning, initiating, and directing action
3. Handling administrative details.
4. Accepting personal responsibility
5. Showing group belongingness and loyalty to the organization.
6. Performing professional or technical specialty.

Careful attention has been given to the description of leader behavior by the University of Rochester researches (Carter, 1953). These researches have sought to analyze the behavior of leaders and other group members by direct observation of members of small homogeneous groups, with immediate recording of the behavior exhibited. In some of these groups individuals were appointed by the experimenters to function as leaders, while in other "emergent" situations no such appointments were made. Thus "leaders" were the individuals so designated in the appointed situations or the individuals receiving the highest observer ratings for leadership in the emergent situations. There were two behavior categories in which leaders consistently and significantly exhibited a different level of activity from other group members. These were: (a) "diagnoses situation — makes interpretation," and (b) "gives information on how to carry out action." There were also some behavior categories in which differences, while consistent, did not reach acceptable levels of statistical significance. Consideration of these does, however, permit the tentative conclusion that "leaders are characteristically concerned with (a) getting insight or analyzing the situation, and (b) initiating the action required" (Carter, *et al*, 1951, p. 595). It is another interesting, and important, finding of these researches that behaviors which characterize leadership in one type of task and situation do not necessarily characterize it in other tasks and situations. Furthermore:

> There seem to be interesting differences in behavior depending on whether the group was working under emergent or appointed-leader conditions It appears that in the appointed situation the leader may perceive his role as that of a coordinator of activity or as an agent through which the group can accomplish its goal. In the emergent group, on the other hand, the person who becomes the leader may take over the leadership by energetic action and by trying to get the other members to accept his leadership. (Carter *et al*, 1951, p 591)

In another study, Couch and Carter (1952), using similar small groups and similar techniques of observation, have attempted to determine factorial dimensions of the behavior of individuals in group situations In all the analyses reported to date three factors have emerged. Of these Carter offers the following verbal identifications.

> *Factor I: Group Goal Facilitation* — the dimension of behavior which is interpreted . . . as being effective for achieving the goal towards which the group is oriented. Efficiency, insight, cooperation, etc., all seem to have a common element of facilitating group action in solving the task.
>
> *Factor II· Individual Prominence* — the dimension of behavior which is interpreted as indicating the prominence of that individual as he stands out from the group. The behavior associated with the traits of influence, aggressiveness, leadership, initiative, and confidence seems to have a common element of individual behavior which is interpreted as achieving recognition by the group of a member's individuality.
>
> *Factor III: Group Sociability* — the dimension

of behavior which is interpreted as indicating the positive social interaction of an individual in the group The traits heavily loaded in this factor — sociability, striving for group acceptance, cooperation and adaptability — all have a common element of representing a friendly interpersonal pattern of behavior of the individual towards the group (Carter, 1953, p. 16)

For our purposes the relation between observations of leadership and these dimensions are of particular interest Carter reports that the average loadings for leadership are. Factor I (35), Factor II (90), and Factor III (05), which means, of course, that in this scheme of analysis leader behavior is seen by the observers to be almost identical with that indicating any form of prominence in the group and, to some extent, as behavior that is goal facilitating In many respects this study represents a crude, preliminary overview of the behavior of group members, and it is encouraging that it indicates such ready differentiation between the behaviors of leaders and others

The most notable, and to date the most complete, researches directed to the determination of dimensions of leader behavior have been those of Hemphill and his colleagues in the Ohio State University Leadership Studies (1950a) These studies began by defining leadership tentatively as "behavior of an individual when he is directing the activities of a group toward a shared goal" (Halpin and Winer, 1952, p. 6). Nine *a priori* dimensions of leader behavior were postulated as follows·

1. *Initiation* The dimension, initiation, is described by the frequency with which a leader originates, facilitates or resists new ideas and new practices.
2 *Membership*. The dimension, membership, is described by the frequency with which a leader mixes with the group, stresses informal interaction between himself and members, or interchanges personal services with members
3. *Representation* The dimension, representation, is described by the frequency with which the leader defends his group against attack, advances the interests of his group and acts in behalf of his group.
4. *Integration*. The dimension, integration, is described by the frequency with which a leader subordinates individual behavior, encourages pleasant group atmosphere, reduces conflict be tween members, or promotes individual adjustment to the group.
5. *Organization*. The dimension, organization, is described by the frequency with which the leader defines or structures his own work, the work of other members, or the relationships among members in the performance of their work.
6 *Domination* The dimension, domination, is described by the frequency with which the leader restricts the behavior of individuals or the group in action, decision-making, or expression of opinion
7. *Communication*. The dimension, communication, is described by the frequency with which a leader provides information to members, seeks information from them, facilitates exchange of information, or shows awareness of affairs pertaining to the group
8 *Recognition*. The dimension, recognition, is described by the frequency with which a leader engages in behavior which expresses approval or disapproval of group members
9 *Production* The dimension, production, is described by the frequency with which a leader sets levels of effort or achievement or prods members for greater effort or achievement. (Hemphill, 1950a, pp 5-6)

Questionnaire scales were then made to measure each of these *a priori* dimensions Application of these scales to a large number of subjects yielded intercorrelations of which a factorial analysis was made. A more complete analysis has since been reported by Halpin and Winer (1952, pp 21-31) and we can extract maximum interest from Hemphill's work by reporting this later study. Winer's analysis is for data obtained for a slightly modified version of the Leader-Behavior-Description scales administered to air crews While some of the defining behaviors are, therefore, couched in terms of the activities of airplane commanders, the four dimensions obtained may also have general validity These four factors, and the percentage of the total variance for which each accounts, are as follows (ibid., pp 27-30)

I Consideration (49.6%): This dimension is probably best defined as the extent to which the leader, while carrying out his leader functions, is considerate of the men who are his followers. There is no implication, however, of laxity in the performance of duty, in this consideration. Individual items indicate that the positive pole of this factor is characterized by warmth of personal relationships, readiness to explain actions, and by willingness to listen to subordinates

II. Initiating Structure (33.6%): This dimension represents the extent to which the leader organizes and defines the relation between himself and his subordinates or fellow group members. Scale items with high positive loadings here include. "Maintains definite standards of performance," "makes sure his part in the crew is understood," "makes his attitude clear to the crew," "asks that the crew follow standard operating procedures," and "assigns

crew members to particular tasks." Of Initiating Structure, Halpin and Winer write (p 28) "This factor probably represents a basic and unique function of leadership. It is possible that other factors (including Consideration) may represent only facilitating means of accomplishing this end"

III. Production Emphasis (9 8%) represents a cluster of behaviors by which the leader stresses getting the job done. It is probably best described as a way of motivating the group or organization members by emphasizing the job to be done, or the group goal. Questionnaire items contributing most to the definition of this factor are: "stresses being ahead of competing crews," "encourages overtime work," "schedules work to be done," and " 'needles' crew members for greater effort."

IV Sensitivity (Social Awareness) (7.0%): The leader characterized by this factor stresses being a socially acceptable individual in his interactions with other group members He is willing to accept changes in ways of doing things, he does not "blame" crew members who make mistakes and he does not make scapegoats of his subordinates, he is sensitive to what goes on in the crew and particularly to conflicts when they occur between crew members

Looking back to the Couch and Carter analysis, one may perhaps attempt some cross identification of factors here. Carter's group-goal-facilitation is similar to Hemphill's production-emphasis, while group sociability and social awareness are by no means unlike if one goes beyond the verbal labels to the actual behaviors involved. It is rather more hazardous to suggest that Hemphill's "initiating structure" has some features in common with Carter's "individual prominence" But if we bear in mind the traits of influence, leadership, aggressiveness, and initiative loading Carter's factor, the two are not so very unlike and it is not too difficult to say that extra-group observers would almost certainly concentrate attention upon those group members who most frequently "initiated structure." One suggestion of the Ohio studies, in opposition to the Rochester finding, is that leaders, like other group members, show group sociability or social awareness and this, of course, conforms more closely to trait researches and to common observations of leader behavior.

THE RELATION BETWEEN LEADER BEHAVIOR AND EVALUATIONS OF LEADERSHIP

The preceding section has described the dimensions of leader behavior derived from the descriptions of that behavior made by co-workers or by external observers of small groups. In it we have implied that these results might be generalized to other groups Our understanding of these dimensions of leader behavior, however, is circumscribed by another very important set of considerations, namely, that descriptions of leader behavior differ depending upon their being made by subordinates or superiors of the leaders concerned Differences are even greater if *ideal* behavior or the *expected* behavior of the leaders is measured and comparisons are made between upward and downward characterizations

In a general way, differences in perception of the leader and the leader role, especially as they exist at intermediate levels of a complex organization, have been recognized for a very long time. Attention has frequently been drawn to the conflicting demands made upon foremen and low-level supervisors, and the conflicting role expectations arising from their overlapping memberships in management groups and work teams

The description of leader behavior as seen from above and from below. Recently several empirical researches have drawn closer attention to these differences and to what appears to be a basic dilemma of leadership in our democratic society. The *American Soldier* (Stouffer, *et al*, 1949, Vol 1, Ch. 8) presents ample evidence that officers and privates hold different attitudes toward authority, leaders, and specific leadership practices Probably most instructive, however, is the comparison of privates, noncoms, and officers on attitudes towards noncom behavior. Some of the high points of this comparison are clearly brought out in Table I As the authors point out, enlisted men are more likely to approve noncom behavior when it is characterized by (i) more intimate social relations with the men, (ii) more sympathetic, indulgent policies in the supervision of men, and (iii) a lack of emphasis, in social and working relations, on formal status differences between themselves and their men. Further comparisons indicate that there is a noticeable "tendency for the officers to approve a more 'official' point of view on the part of the noncom, and the opposite tendency for the enlisted man to approve informal cooperation from the noncom in escaping official regulations" (Stouffer, *et al*, 1949, p. 408). In terms of the dimensions we have recognized above it may be said that, in the behavior of their noncoms, privates value membership, consideration, and social sensitivity more than officers do, while the latter value more highly the initiation of structure, following "standard operating procedures," and the like.

TABLE I

COMPARISON OF PRIVATES, NONCOMS, AND OFFICERS ON ATTITUDES TOWARDS NONCOM BEHAVIOR

(Stouffer *et al.,* 1949; Vol. 1, p 408)

	Privates (384)	Noncoms (195)	Officers (31)
	(Percent who agree with each statement)		
Social Relations			
"A noncom will lose some of the respect of his men if he pals around with them off-duty"	13	16	39
"A noncom should not let the men in his squad forget that he is a noncom even when off-duty"	39	54	81
Disciplinarian			
"A noncom has to be very strict with his men or else they will take advantage of him"	45	52	68
"A noncom should teach his men to obey all rules and regulations without questioning them"	63	81	90
Work Supervisor			
"A noncom should always keep his men busy during duty hours, even if he has to make them do unnecessary work"	16	22	39
"The harder a noncom works his men the more respect they will have for him"	10	18	42
"On a fatigue detail, a noncom should see that the men under him get the work done, but should not help them do it"	36	37	68

Numbers in parentheses are the numbers of cases

A somewhat different form of evidence, though still in a military setting, comes from the work of Roff (1950a). In this study pilots with the ranks of captain and above rated subordinates, while pilots with the rank of lieutenant or flight officer rated their immediate superiors These two sets of ratings were compared, item by item, to discover differences in the descriptions of leadership from above and below and, in addition, factor analyses were made of the correlation matrices representing the inter-item relations under the two sets of conditions The direct comparison revealed that subordinates rated their "leaders" markedly lower than superiors rated their subordinates on those items concerning interpersonal relations, which had already been shown to have importance in distinguishing between good and poor combat leaders Items showing the greatest differences in this comparison were (i) sincerity, which referred to straightforwardness and the keeping of promises, (ii) impartiality, defined in terms of not playing favorites and being fair to everyone under his command, (iii) concern for personal advantage, which was described as implying lack of rank consciousness, concern for group performance and for the welfare of fellow group members; (iv) ability to mix with subordinates; and (v) willingness to pass on information to subordinates. In other words, Roff found differences in descriptions from above and below to be greatest in our dimensions of consideration, membership and communication. The factor analyses yield the interesting suggestion that, in spite of the specific differences revealed, both superiors and subordinates do

describe leader behavior in very similar terms. The factors, after rotation to oblique simple structure, are remarkably similar, as Table II clearly shows.

TABLE II

FACTORS IN THE DESCRIPTION OF LEADER BEHAVIOR BY SUBORDINATES AND SUPERIORS

(Roff, 1950a, p 16)

Ratings by subordinates	*Ratings by superiors*
I Competence in combat flying	I. Competence in combat flying
II Fairness	II. Fairness
III Courage	III Courage
IV Administrative competence	IV Administrative competence
V Responsibility (general duties)	V Responsibility (general duties)
VI. Likeability	VI Likeability (by subordinates)
	VII Likeability (by superiors)

Evaluations of leadership by superior and subordinate. While these comparisons imply evaluation, there is a considerable difference between leadership description and leadership evaluation. Hemphill, Siegel, and Westie (1952) have developed a "discrepancy" score to reveal the extent to which the reported behavior of a leader deviates from his expected or "ideal" behavior so far as the reporters and judges are concerned. Using a high discrepancy score as an indication that a leader is considered a "poor" leader in that area, they have indications that of all areas of leader behavior, communication may be most important in differentiating "good" and "bad" leaders In yet another study, Halpin, and Winer (1952) discuss the evaluation of leader behavior in relation to scores on scales of "consideration" and "initiating structure." In one part of this study 52 airplane commanders were rated by instructor teams. These raters were inclined to associate "initiating structure" behavior, rather than "consideration," with effective leadership and other favorable ratings. Further, 29 of these commanders were rated again under combat conditions and it was then found that a global rating of leadership had a partial correlation which was negative but not significant with "consideration" scores, but a significant positive correlation with "initiating structure." In summary, two trends are recognized: (i) administrative superiors tend to associate "good" leadership with "initiating structure" and "poor" leadership with "consideration," and (ii) the tendency to do this is more marked under combat than under training conditions.

These "trends" in the data have been followed up in the Ohio series of researches by seeking to discover the relations between leader behavior description scores and evaluations of leadership made by the crew members. To this end a sociometric index of crew evaluation of leadership was developed, and for a group of 27 AC's correlations between this index and leader behavior "dimension" scores were worked out Here the partial correlations between the Consideration scores and the Sociometric Index all achieve statistical significance, and all are positive in sign This is in contrast to the corresponding findings, mentioned above, for the relation of these scores to ratings by administrative superiors.

There are further confirmations of this highly important indication that leadership, at a given level in organization, is evaluated in terms of different criteria by those above and those below that level Stogdill and Koehler (1952, p 33) mention a similar phenomenon, and Scott (1952, p 89) refers to the possibilities of conflict in leaders at intermediate levels of an organization as a result of conflicting demands and expectations of their behavior by superiors and subordinates His data suggest, he says, that the permissive, subordinate-oriented officer may be more highly regarded as a leader by enlisted men than by officers On the other hand, Scott's units differed in the extent to which there was discrepancy between formal organization charts and perceptions of organization structure by enlisted personnel. Perceptual errors tended to be *lowest* in those units in which the leader was high in authority, level, and rank. And, furthermore, these leaders of units with low perceptual error tend to be rated higher in leadership by superiors and by officers than by subordinates and enlisted personnel.

The essential dilemma of leadership in a democracy The data of the *American Soldier* reveal quite clearly a fact of which many leaders have themselves spoken and written. If an intermediate-level officer is to be a real leader, he has a dual role to play He must accept the norms and values of superior authority, thus serving as an agent of the impersonal and coercive organization of which he is part. To the extent that he does this effectively his superiors regard him highly. At the same time, he must win the willing followership of the men under

him, so that he wields over them authority which they have themselves given him. He will be rated highly by the men to the extent that he shows "consideration" for them and to the extent that he mingles freely with them and represents them against the cold machine which is the over-all organization There can be no doubt but that this conflict inheres in the leadership role, especially in a culture which emphasizes the high moral value of "democracy"

This same conflict in the case of the airplane commander has been documented by Halpin, and Winer (1952). They show that administrative superiors perceive an antithetical relationship between the leadership behavior represented by the "consideration" and "initiating structure" scores. Similarly, the leader himself, in characterizing how he *should* behave, reveals something of this feeling of antithesis Finally, the men over whom the leader exercises command have still different expectations of him, and of these he is also made aware. There is a further important point· superiors do not *personally* place a low value on consideration in interpersonal relations. They, too, are taking functional roles in an organization. It may well be that their greater evaluation of consideration behavior would jeopardize the formal structure of the larger organization. It might be hypothesized that if this is so one could expect that this de-emphasis of consideration would be more marked in the case of the more insecure organization heads.

Bales' (1953) results also reveal the conflict situation in which the leader finds himself. If he offers instrumental leadership, he quickly loses popularity Even more important for their long-run implications are Bales' data suggesting that, in the face of these incompatible roles, it is the exception rather than the rule for a man to give up popularity to become an instrumental leader

Individual-centered evaluation of leadership. Two kinds of criteria for the evaluation of leadership can be used. There are those which focus on the behavior of the individual leader and there are those which evaluate leadership in terms of results for the group. Individual-centered evaluations will be in terms of frequency of choice by other group members, or merit ratings by group members or extra-group observers, or measures of conformance to expected role behavior or, perhaps, self-ratings by the leader himself. Whichever of these methods of evaluation is elected it will be, as our discussion has just shown, subject to considerable variability as attention is shifted from one level of organization to another and particularly as the major shift from subordinate to superior judges is made. It is partly for this reason that some writers prefer group-centered evaluation of leadership

Group-centered evaluation of leadership Here the criteria might be the extent to which group cohesiveness or viscidity is changed, group productivity, and so on. The reader will recall that Cattell (1951) proposed to define leadership in such a way that evaluation would be shifted entirely to measurements of the performance of the group acting under guidance.

There is evidence that individual-centered evaluations are often unreliable. It has, for example, been reported (Gibb, 1949) that observers of small groups are frequently aware that the formal officeholder is not the real source of influence in group behavior Further, there is evidence (Gibb, 1950, Bales, 1953) of poor agreement between various forms of sociometric assessment of leader behavior and, in some circumstances, the correlations between observer ratings and sociometric indices of leadership have not been high On the other hand, there is not yet available any well-established technique for making group-centered evaluations But Hemphill, Siegel, and Westie (1952) have been able to show relations between some of Hemphill's group dimensions and discrepancies between expected and reported leader behavior. They are led to conclude (p. 55) that "group Viscidity is the most sensitive dimension as far as being an index of 'goodnesss' or 'badness' of group leadership," and that "Polarization may be regarded as a second index of the 'goodness' of leadership." There is, of course, no reason why leadership may not be evaluated by multiple criteria of both categories, and studies which examine the relations among these many criteria of effectiveness are of great importance.

The criterion problem in studies of leadership. In summary, it may be said that this section has been concerned with the familiar criterion problem as it presents itself in studies of group leadership. It is not enough to know what leadership is, we want to know what "good" leadership is and how it is differentiated from "poor" leadership. Evaluation may be in terms of ratings by extra-group observers of the individual and group performances and of individual-group relations, and/or in terms of similar ratings by participants in the actual group activity, and/or in terms of self-appraisals by leaders themselves. Our discussion has shown, however, that correlations between these different forms of the criterion measure are not high. The relations of the assessor to the group

and to the leader both affect considerably the nature of the assessment made. There seems no reason to believe that such variables will be any less influential when assessments are limited to group behavior or to syntality change.

Group Factors in Relation to Leadership

Different people want different things of leadership. Patterns of behavior which constitute effective leader behavior in one group may not be effective in another. As group goals change, leadership needs change and different forms of leader behavior are demanded. Effective leadership in group discussion may not be effective leadership in physical construction. A number of research studies have, in recent years, examined the relations between leader behavior and such group factors as organization structure, pattern of communication, size, cohesiveness, personality content and the like.

ORGANIZATION — FORMAL AND INFORMAL

Organization implies differentiation of roles, including leadership roles. It is noticeable, however, that in newly formed groups organization is fluid, i.e., there is a redifferentiation of roles and a redefinition of rules and traditions when the situation changes. In lasting associations these things tend to become formalized, and among the important group traditions are the permanent distribution of roles and the stability of rules. Such *formal organization* does not, however, embrace all of the patterns of relatedness or all of the group definition of roles and rules which are observable in an association. There is, side by side with the formal, charted organization, an *informal organization*. When one examines formal organizations in actual operation one finds that the individual members do not, in all respects, act in accordance with the specific definitions of their roles and offices. And this is to be expected, because the specific social situation and the personalities of individuals cannot be anticipated by a formal organization. The personal relations that develop among members of an organization themselves achieve stability and affect members' expectations of one another. This informal organization contains the primary groups, cliques, and congeniality groups that develop within the lasting association whether it be team, political group, shop, or office. Informal organization is the source of much social control. What is more, its values, its power structure, and its behavior expectations may be at variance with those of the formal organization, and may be perceived to be so by the members themselves.

Officeholders in any formal organization are confronted with these discrepant formal and informal expectations of themselves. There is evidence in the work of Scott (1952) and of Stogdill and Koehler (1952) that the morale and effectiveness of an organization depend upon the extent of these discrepancies. The clarity of members' perceptions of their reciprocal relationships and responsibilities is crucial, regardless of whether these mutually recognized relationships correspond to formal structure. And furthermore, the clarity of such perceptions is seen to depend, in part, upon the leader behavior of immediate superiors. The perception of organization structure is apparently clearest when the leader is of high rank, is rated highly by his superiors, devotes time to consultation with his associates, works predominantly with peers, devotes time to inspections of organization, and himself perceives organizational relationships clearly. The implication is that within a steeply hierarchical organization the most effective leader is one who recognizes the structure and conforms closely to the expectations of organization members.

Many researches, as we have seen, indicate that group members prefer a leader who shows "consideration" for them, who "goes to bat" for them, and sides with them in any conflict with higher echelons of organization. But Pelz (1951) suggests that this is so only in small work groups of ten or fewer. In large white-collar work groups, he found employees were less satisfied with such a supervisor and revealed a preference for the supervisor who identified more closely with higher management. The general conclusion of this study is that workers want their leaders to assist them in goal achievement. The extent to which a supervisor can do this is determined by his "influence" upon superior echelons of organization. The worker does not want less "consideration" behavior but, recognizing the organizational context, he knows that he must satisfy himself with less "membership" behavior from his supervisor in order that the supervisor, in turn, may interact more freely with higher levels of supervision and thus exercise greater influence upon them. This situation at least hints at some of the differences one would be likely to find among the expectations of leaders, as these are determined by formal and informal organization.

Even with small groups of six, however, Wol-

man (1953) has recently found that election to leadership may depend upon perceived "power" rather than upon "acceptance" *Power* is here defined as the ability to satisfy needs or to deny such satisfaction, and *acceptance* as the readiness to do so In all groups Wolman sees leadership as a general function of power and acceptance However, in what he calls the "instrumental group," which people have joined because membership is perceived to help in the attainment of personal goals, he finds that a disliked but "powerful" person is more frequently endorsed as leader than a more friendly one whose contribution has been less.

Likewise Bales (1953), also using small groups, has found leadership more closely associated with contribution of ideas and with guidance (i e., with power) than with liking (or acceptance) Bales' groups, like Wolman's, are instrumental groups insofar as their participants had joined the group, not for friendly company, but to earn money or to enhance their course grades Both of these investigations approach the conditions of Pelz's study in that the group task has been set by higher authority within a hierarchical organization Thus a general conclusion seems warranted, that, with an organizational setting, perceived power or "influence" behavior is more closely related with leadership than is acceptance or "membership" behavior.

Formal and informal leadership Formal leaders are defined as specific officeholders, and informal leaders are defined in terms of choice status, using some criteria of influential behavior That the group influence and the actual behavior of formal leaders are different from those of informal leaders, there can be little doubt. Data from the *American Soldier* (1949, Vol. 1, p. 471) indicate that discussion groups led by "informal," i e, chosen, leaders were much more effective and satisfying than were those led by equally competent but unchosen men. James E White (1950), from a study of the relations between formal and informal leadership in a New York rural community, concludes (p. 55) that: "Informal and formal leadership are not closely related to each other; they are simply different" In White's explanation as to why informal leaders are seldom found as formal officeholders there is one notable factor There is evidence that the more community organizations are independent of control by higher authorities the more they are likely to have, as formal officeholders, men who rank high with respect to informal influence. In other words, structured formal organization may have inherent in it barriers to the assumption of office by those leaders of the informal organization who could contribute most to organization efficiency.

Bureaucracy and leadership. Formal organization, particularly in large groups, involves not only a differentiation of role and function but also, and inevitably, differential degrees of participation in the affairs of the group. There emerge not a leader and his group, but a leader, an administrative staff (or bureaucracy), and a group of relatively inactive members Bureaucratic organization changes significantly the relations between a formal leader and his group. The leader of a large bureaucratic organization cannot be so representative in his behavior as can the informal leader of a smaller primary group His very position in the bureaucracy gives him a different perspective and, of course, the longer he occupies this office the more different that perspective is likely to be, since he has access to new kinds of knowledge and is subject to various extra-group pressures Furthermore, his persistent occupation of this role casts him into new membership and reference groups and confers upon him a status which he would not otherwise enjoy. It may thus become one of his primary motives to maintain himself in office. His interests and those of his group may diverge Various restraints and devices, as Selznick (1951) has pointed out, must be employed toward maintenance of power. In general it remains true, however, that a leader who gets too far away from the interests and attitudes of members in such an organization may lose his following and eventually his power and status. The principles of leadership discussed in this chapter remain relevant to the analysis of bureaucracy but are not sufficient to represent the special complications of bureaucratic hierarchies.

Leader and organization. Leadership and supervision are highly important factors in determining organization efficiency. Several studies of the Survey Research Center (Katz, *et al*, 1951a, b) have pointed to the close relation between style of supervision and the productivity and morale of work groups. The men with the highest morale were those who perceived their supervisors as performing a number of broad supportive functions Stogdill and Koehler (1952) also found morale and effectiveness of an organization to be correlated with leader behavior. Furthermore, these authors suggest that differences of organization between two military groups may be related to differences in the personalities of the commanding officers. A more "socially expansive" organization seems to be largely a function of the warm, friendly, affable personality of its C.O.

Merei (1949) has reported an experiment with nursery-school children which shows that the leader does not always determine organization and organization performance. Merei and his co-workers observed a large number of children and obtained records from which they could identify leaders and followers Four or five who had been identified as followers and who had been selected in such a way as to minimize their difficulty in forming a group, were then put together in a separate room When observers could recognize the criteria of group formation, namely, development of their own rules, habits, and traditions, a leader was placed in the group This leader was usually an older child who, in the original observations, had shown himself to give orders more often than follow them, who was imitated more often than he imitated others, who attacked more often than he suffered attack, and who had shown initiative in play. Merei's observations were that these young groups absorb such a leader, forcing their traditions upon him. The leader's own undertakings either remain unsuccessful or gain acceptance only in a modified form suiting the traditions of that group The leader now was forced to follow the behavior of those who in the pre-test situation had followed him This is not to say, of course, that the introduction of the leader had no effect upon these small organizations In many cases, although the leader was forced to accept the group's traditions, he still managed to carve out for himself a leader role, but he led the group in the direction it would have taken had he not been there He was able frequently to modify means, but he had little influence in setting or changing goals

COMMUNICATION SYSTEMS

One feature of a group which affects its leadership, as well as all other aspects of its performance, is the communication system or pattern available to it. It is impossible, of course, to exaggerate the importance of communication in group behavior. Communication is *the* process by which one person influences another and is therefore basic to leadership. Organization implies some restriction of communication, or at least a patterning in such a way that some communication channels are more readily available than others. And it is to be expected that restrictions upon communication can affect perceptions of leadership. This has frequently been observed in industrial and political organizations and is generally recognized as one of the techniques by which bureaucrats retain their offices.

Bavelas and his associates (Leavitt, 1951) have brought out clearly, in laboratory groups, some of the relations between communication pattern and leadership By placing restrictions upon groups of five persons, so that both the nature and frequency of communication could be controlled, they have shown that position in a communication pattern determines, largely, both the assumption of certain group functions and the probability of being perceived as a leader Certain important functions tended to be served by people occupying more central positions in the communication network And the unanimity of opinion, given by participants, as to who was the leader, increased as the imposed pattern determined greater differences between the members with respect to freedom of communication Particularly this was true as the most central man became more clearly differentiated from the next-most-central Apparently differential restriction upon communication in a group determines behavior by limiting independence of action, thus producing differences in opportunity to influence others or to be perceived by them as doing so

VARIABILITY IN GROUP DIMENSIONS

The pioneering work of Cattell and Wispe (1948) and Hemphill (1949), in the empirical determination of independent dimensions of groups, has led to several studies in which leadership behavior has been related to variability in the several dimensions

Among the observations of Hemphill's original study (1949) was the fact that behavior associated with being considered an adequate leader is also associated with the general level of pleasantness of group membership (the dimension of hedonic tone) and with the tendency of the group to function as a unit (viscidity). In some groups, as Hemphill suggests, it may be that a leader's most important functions are those of maintaining group membership as a satisfying experience for the members and of facilitating group rather than individual action.

The size of the group is a variable which affects leadership. When leader behavior in groups having 31 or more members was compared with that in groups of 30 or fewer, it was found that as the group becomes larger (a) demands upon the leader's role become greater and more numerous, and (b) tolerance for leader-centered direction of group activities becomes greater (Hemphill, 1950b).

Maas (1950) records that leaders were more involved, both more active and more in demand,

in open groups, i e , those which focused on an activity program, with relatively informal meeting procedures, and with membership open to all comers Furthermore, this dimension (permeability) of groups has some relation to leader behavior and personality In "open" groups imposed leaders, whose personalities are characterized by a tendency to project blame, show desirable changes in social perception, i e , they show less distortion of perception by judgments and more perception with causal inference. On the other hand, these same desirable changes occur in the behavior of leaders who tend to introject blame when they are placed in "closed" or clearly structured groups

There are indications that less homogeneous groups are found to have older leaders. Another characteristic of groups related to leader's age is "control." Groups with higher control scores also have older leaders (Hemphill, Seigel and Westie, 1952)

Groups which have had a longer group life have leaders who engage in less membership behavior, i.e., who mix less with group members. There is, however, some slight negative correlation between age and the membership behavior of leaders, and this may mean simply that older leaders tend to engage less frequently in informal interaction with other group members (Hemphill, Seigel, and Westie, 1952).

Viscidity is associated significantly with nearly all dimensions of leader behavior, as well as with its adequacy. It is closely associated with the communication behavior of the leader and this, as we have seen, may be the most important behavior area with respect to the evaluation of leadership. Viscidity is also associated positively with initiation, membership, recognition, integration, and organization behaviors, and negatively with domination. These data suggest again that viscidity is the group dimension most sensitive to leader behavior, and emphasize Hemphill's earlier conclusion that maintenance of viscidity may be *the* primary function of group leadership.

Group control and leader domination are associated, as might be expected, since they are both related to restriction of members' freedom. There is also a significant negative correlation between control and membership Group stratification bears very similar relations to domination and membership and has, in addition, a positive correlation with organization behavior of the leader. These relationships may well be part of the same pattern.

Other associations which suggest this double aspect concept are those of the degree of mutual acquaintance among members, i.e., intimacy with communication, integration, and membership, those of goal orientation or polarization with initiation, organization, and recognition, and that of the relation between the group's formality of procedure and the organization behavior of the leader

Hemphill's data further imply that the greater the primary significance of a group for its members, the more restriction of individual freedom they are ready to accept, and the more they look to their leader to assume "autocratic" control.

Other studies (Gibb, 1949, Cattell and Stice, 1953) have hinted that an "autocratic" leadership technique is found in association with such group behavior characteristics as orderliness of performance, goal direction, and cohesiveness or viscidity. Gibb (1949) has, however, made the suggestion (which still requires validation, although there has been some support) that some of these relations are dependent upon the leadership ideology of the groups under study His student and military groups showed a marked difference in respect of the direction of relationship of autocracy with organization and member freedom.

The nature of the task upon which the group is engaged appears also to affect this relationship, as Haythorn's data testify (1952) Aggressive, self-oriented, authoritarian participation on the part of one member of a group tends, on reasoning and discussion tasks, to reduce group morale, but on a mechanical assembly task, to increase it. Such leader behavior decreases group friendliness in all task situations, but it reduces cohesiveness and cooperativeness only in the reasoning and discussion situations

SPECIFIC CONSIDERATION OF THE FOLLOWERS

It has long been a common belief that one highly important determinant of group behavior consists of the personalities of the followers in any group. Although there have been short periods in the history of group dynamics when this well-established belief seemed threatened, there is undeniable evidence of its validity Cattell, Saunders, and Stice (1953) have expressed their surprise to find the large part of group behavior variance accounted for by population variances, in other words, by the personality of the group members.

The Illinois studies (Gibb, 1949; Cattell and Stice, 1953) suggest that a more "autocratic" form of leadership is to be found in those groups in which the mean intelligence of members is high, in which members are more emotionally mature, in which members have a high mean "radicalism" score, and in which members are

heterogeneous with respect to dominance needs and with respect to a sophisticated intellectualism

With the aid of a well-planned research design William Haythorn (1952) has obtained significant findings in this area. His sixteen subjects were run in twenty groups of four, on reasoning, mechanical assembly, and discussion tasks, in such a way that each subject worked with each other subject once and only once It was thus possible for him to determine the influence of one variable, such as aggressiveness, on the part of one member of a group, on the aggressiveness or on the leadership of other members, and so on One of the most striking results of the study is represented in Table III,

TABLE III

CORRELATIONS BETWEEN RATED BEHAVIORAL TRAITS OF SUBJECTS AND OF SUBJECTS' CO-WORKERS. MECHANICAL ASSEMBLY TASK

(Haythorn, 1952, Table VIb)

Rated traits of subjects*	Rated Traits of Co-workers*										
	Aggr	Init	Pres	Conf	Subm	Eff	Soc	Ins	Auth	IndS	Lead
Aggr	–.89	–.73	–.85	–.83	.83	– 57	–.21	–.75	– 90	– 77	–.89
Init	– 85	– 82	– 85	–.78	.84	–.51	– 10	– 62	–.75	– 70	–.80
Pres	– 84	– 69	– 83	–.78	84	–.30	.00	– 68	– 76	– 80	–.79
Conf	– 80	– 83	–.84	– 85	79	–.42	– 23	–.67	–.74	– 69	– 81
Subm	87	88	87	.87	– 85	48	.17	73	.83	.69	.84
Eff	–.71	– 69	– 68	–.70	74	– 15	– 13	–.39	–.64	– 66	– 64
Soc	10	.14	.03	.03	– 21	.01	– 65	.09	04	.25	09
Ins	– 71	–.73	–.78	–.76	76	– 26	.01	–.53	–.57	– 71	– 67
Auth	–.86	–.72	– 81	–.78	80	– 37	– 23	–.71	–.90	–.75	– 85
IndS	– 80	–.79	–.83	–.80	.76	– 48	–.12	– 75	–.75	– 69	– 90
Lead	– 88	–.80	– 90	–.87	83	– 46	– 10	–.77	–.81	–.75	– 89
$N = 16$											
$r_{05} = .49$											

*Definitions of rating scale variables

1. Aggressiveness — the degree to which the individual's behavior was directed toward the physical or psychological injury of other group members.
2. Initiative — the degree to which the individual was instrumental in starting the group on new phases of the task solution.
3. Prestige — the degree to which other members of the group seemed to respect or "look up to" the individual being rated
4. Confidence — the degree to which the subject seemed assured of his ability to cope with the group situation.
5. Submissiveness — the degree to which the subject deferred to or took directions and orders from other group members.
6. Efficiency — the degree to which the individual's behavior in the group contributed to solutions of the problems presented.
7. Sociability — the degree to which the individual's behavior was directed toward expressing friendly social relationships with other group members
8. Insight — the degree to which the subject was able to see relationships between various aspects of the problems presented, and thereby arrive at correct solutions to the problems
9. Authoritarianism — the degree to which the subject gave orders and directions to other group members.
10. Individual Solution — the degree to which the subject's behavior indicated an attempt on his part to arrive at solutions to the problem independently.
11. Leadership — the degree to which the subject was responsible for moving the group toward the common goal of task solution.

which shows the correlations between traits of subjects and of those subjects' co-workers as rated by trained observers This table for the mechanical assembly task is not significantly different from similar tables for the other two types of group activity. In particular, it will be observed that if one member of a group is aggressive, self-confident, interested in an individual solution to the task, and shows initiative, then the other members of the group show less of such behavior than they otherwise would. As one member of the group engages in more self-oriented, authoritarian leadership behavior, the other members of the group engage in less of such behavior According to Haythorn, when one subject behaves in such a way as to create interpersonal tensions, his co-workers act to decrease these tensions, or at least to prevent an overt conflict Once again we are faced with clear evidence of the interactional nature of leader behavior, this time with an emphasis upon what might be called compensatory group mechanisms which suggest the applicability to group behavior of the concept of homeostasis

Some of the important questions in this area have been asked by Sanford

> Are there any discoverable traits of the follower which move him to accept or reject strong-man leadership? Does the personally insecure person seek out leadership and lean heavily upon it? What is the American attitude toward authority? Are we really, as the anthropologists tell us, an authority-rejecting people? What is the American "ideology" of leadership, if any? Does the American individual have a set of standards by which he judges the adequacy of various sorts of leadership? . . . The answers to such questions can be expected to furnish useful knowledge about the background against which all leadership in America occurs, and will most surely help define the general leader-follower relationship. (1952, p. 58)

He has himself provided tentative answers for some of these questions On the basis of a brief scale of Authoritarian-Equalitarian attitudes, relations between this trait and many factors associated with leadership have been examined In summary, it is found that authoritarians and equalitarians differ in the kind of leadership they demand and in their responses to leader behavior. Authoritarians prefer status-laden leadership, strong authority and direction on the part of the boss. Toward weak leaders they express open hostility. Equalitarians, on the other hand, are able to accept strong leadership if the situation demands it, but they have no need for powerful authorities. Authoritarians care little for personal warmth in their leader but they do demand that he contribute to their locomotion toward group and individual goals. Equalitarians are inclined to evaluate leaders in terms of their "human relations" behavior and their group process, rather than goal orientation. The possibilities of frustration and conflict are clear. Authoritarians are dissatisfied and uncomfortable under a nondirective leader. A group of equalitarians could be expected to go into a decline under a rigid and directive leader.

THE SITUATION IN RELATION TO LEADERSHIP

Usage of the term "situation" varies from the more or less literary "combination of circumstances at a moment" to the technical emphasis of the definition given by Thomas and Znaniecki (1947). For them:

> The situation is the set of values and attitudes with which the individual or the group has to deal in a process of activity and with regard to which this activity is planned and its results appreciated. Every concrete activity is the solution of a situation The situation involves three kinds of data (1) The objective conditions under which the individual or society has to act . . . (2) The pre-existing attitudes of the individual or the group which at the given moment have an actual influence upon his behavior. (3) The definition of the situation, that is, the more or less clear conception of the conditions and consciousness of the attitudes (p. 76)

In the situational approach to the study of leadership the term connotes at least four categories of behavioral determinants which are not all forecast by the above definition. The situation includes: (i) the structure of interpersonal relations within a group, (ii) group or syntality characteristics such as those defined by the group dimensions already discussed, (iii) characteristics of the total culture in which the group exists and from which group members have been drawn, and (iv) the physical conditions and the task with which the group is confronted.

Leadership is always relative to the situation So far as the pre-existing attitudes of the group members are concerned, we have already seen this to be so. It has frequently been reported that officer trainees judged good in O.C.S. are not necessarily judged good in combat. And naval officers rated highly at sea are not always given good efficiency ratings ashore, as Flanagan's (1949) correlation of plus .10 testifies. With respect to laboratory groups, Carter and Nixon (1949) found that the correlation between leadership scores was plus .64 for intellectual and clerical situations, but was only plus

.40 between intellectual and mechanical, and plus .30 between clerical and mechanical situations. Gibb (1947) has recorded his observation that the leadership of small traditionless groups may shift frequently even as the group moves from one phase of problem solution to another.

Generality or specificity of leadership. It is not claimed, of course, that this succession of leaders with situation change represents a change of role occupant and not of the role itself. Quite the contrary. Observation of small groups suggests that leadership may inhere in a variety of role patterns. As the situation changes the roles which are leadership roles change, and because of individual differences among group members, the likelihood is that different members will be perceived to fill these roles best. It is possible, of course, that in some groups personnel rotation will not accompany role shifts, and that minor situational changes may make but slight demands for role modification, thus permitting a present leader to modify his behavior sufficiently to retain leadership. As Carter (1953) has pointed out, the early positions of Jennings (1943) and Gibb (1947) which tended to swing thinking in the direction of this form of situationism are correct only in an *absolute* sense. And Carter is, of course, correct when he claims:

> There are probably families of situations for which leadership is fairly general for any task falling in that family, but there will be other families in which the leadership requirements will be fairly independent of those in the first family of situations. (p. 26)

This conclusion was derived from a study in which the same groups were observed at six different tasks: a reasoning task, an intellectual construction task, a clerical task, a discussion task, a motor cooperation task, and a mechanical assembly task. Leadership ratings for each member in each task were intercorrelated by task and a factor analysis was made. This analysis indicated the existence of two families of tasks, so far as leadership demands were concerned. One of these families was characterized by ability to lead in intellectual task situations, and the other by ability to lead in situations where the task called for manipulation of objects.

For ten groups, each of ten male students, Gibb (1949) has calculated intercorrelations between eight different group tasks with respect to ratings of leadership. Although the tasks varied from mechanical construction, through intellectual problem solving and clerical tasks, to discussion of highly emotionally toned issues, the coefficients are all positive and all significant. These coefficients (tetrachoric) are, in fact, normally distributed about a mean of plus .67, which may be regarded as a summarizing coefficient. Such a coefficient is high enough to indicate that, within the variation provided by the different tasks, leadership is not entirely specific to the situation. Neither is it wholly a general factor.

These demonstrations of families of situations within which leadership roles may be *relatively* consistent leave untouched the practical and theoretical importance of the concept of situational specificity. Many observers confirm the tendency for leadership to pass from one individual to another as the situation changes. In the major situations of everyday social life we would expect just this. Even within the structure of a naval organization Stogdill and Koehler (1952) observe that sociometric choices are likely to concentrate upon the department head who is at the focus of the activities and objectives of the organization at the time of the study. As the activities change the focus of choices changes to the department which is most critically involved in the new tasks to be performed. Furthermore, as he compares organization activities and leader behavior in port and at sea, he suggests: "A factor analysis would probably yield several factors common to the in-port and at-sea tables, and one or two factors specific to operations in port" (p. 51).

The important suggestion appears to be that a group member achieves the status of a group leader for the time being in proportion as he participates in group activities and demonstrates his capacity for contributing more than others to the group achievement of the group goal. It is known that the situation is especially liable to change through changes in goals, changes in syntality, changes in interpersonal relations, the entrance of new members and the departure of others, pressures from other groups, and so on. Since individual personality characteristics are, by contrast, very stable, it is to be expected that group leadership, if unrestricted by the conscious hierarchical structuration of the group, will be fluid and will pass from one member to another along the line of those particular personality traits which, by virtue of the situation and its demands, become, for the time being, traits of leadership. This is why the leader in one situation is not necessarily the leader, even of the same group, in another different situation.

Psychodynamics of the Leadfr-Follower Relation

Obviously the relationship between leader and followers must have a credit balance of psychological satisfactions to both leader and led; it must be rewarding in both directions, since both the leader and the followers must be acting through this relationship to maximize individual satisfactions. Rashevsky (1947) has submitted such an interactional relationship to mathematical analysis and has shown how the relationship itself may serve to increase individual satisfaction. However, we have to account not only for the dynamics of the smoothly working relationship once it is firmly established, but also for the manner in which the leader-follower relation is brought into existence. Freud has pointed out that, from the dynamic standpoint of the libido theory, the state of being in love is very like that of hypnosis and also very like that of group formation and its leader-follower relation.

This problem has sometimes been considered in terms of the motivations of leaders as if it were the leader's will power and decision which brought the relationship into existence. Our previous discussion must have made it clear that this is an untenable view. Of course, it is important, as Krech and Crutchfield (1948) suggest, that the group have within its membership a person who needs the leadership role and is qualified to occupy it. We can perhaps simplify this discussion if we differentiate between the satisfactions of leadership, the satisfactions of followership, and the emotional relations that may exist between leader and follower.

THE SATISFACTIONS OF LEADERSHIP

Leaders in almost every form of activity are prominent persons and come easily to the attention both of group members and of those outside the group. It is not, therefore, surprising that a great deal of history has been concerned with recording the behavior and speculating upon the motives of leaders. A preponderance of information about a man like Napoleon Bonaparte and a corresponding dearth of reliable data concerning the details of those situations in which he rose, step by step, to the throne of France, inevitably leaves the impression that the all-important factor in his success was the man himself. Consequently, most writing about Napoleon's leadership has been concerned with his motivation. What constitutes the need for leadership?

Economic reward. Thorndike (1940) has presented data relevant to the hypothesis that persons seek roles of leadership and eminence because of the economic reward and that the final incentive is sufficient to make men willing to expend the energy and adopt the self-discipline which the role may require. He found the average income for the six most outstanding leaders in each of a large number of occupational fields for a given financial period. Although it is true that these men were highly rewarded, the data revealed such wide variability in the material rewards that we suspect the existence of some more stable incentive running through all striving for eminence, creative expression, or leadership. Probably Charles Wilson's sacrifice of $2,400,000 worth of General Motors' stock in order to accept the Secretaryship of Defense will long be remembered as a testimony to the strength of incentives other than economic reward.

Primitive dominance. Could it then be that there is in every man, if not in every woman, in our society at least, some basic urge to dominate, control, or influence his fellows? Many of those who stress a dynamic force in leadership argue that the relation of leader and follower is not so much an expression of acquired attitudes as of an innate primitive dominance-submission need. Maslow (1936) has shown that in any social group of individuals — human or animal — a hierarchy of dominance feeling, behavior, and status soon develops, and that the dominance status of any individual is fairly constant. Certain individual characteristics such as sex, bodily size, energy, bearing, and age can be shown, among primates, to be closely related to dominance. "Pecking orders" have been charted for domestic hens and for a great variety of other animal species. In addition, Hanfmann (1935) has revealed a similar dominance structure in a group of children, while Deutschberger (1947) has pointed to this characteristic in gangs.

The attitude of the follower in this relation is one of habitual and willing submission, awe, and deference. It must not be forgotten that such behavior can give psychological satisfaction. The maintenance of this relation depends upon the ability of the leader to retain control of power, to retain prestige, and to be impressive. Since by this hypothesis the followers, too, must have dominance needs, even if less strongly, some explanation is required as to their means of satisfaction. Several possibilities present themselves. Such satisfaction may occur in relation to other objects, or may come about

vicariously through identification with the leader or with the total assertive group itself, or may occur directly by virtue of the hierarchical organization of the group which gives to almost every member both a submissive and a dominant role. It is in this form of organization that Fromm (1941) sees much of the success of the Nazi party in Germany.

Power over others. Psychoanalytic theorists have frequently claimed to recognize a father substitution in the attitudes of followers to their leader. There seems to be no doubt but that in some circumstances the leader is an object for transference of long-established feelings of dependence and submissiveness by followers in such a way that his power pervades very large areas of their lives What is the motivation of the individual who accepts responsibility for these dependent persons? There does seem to be evidence that the leader, on his side, gains satisfaction for a desire to express parental affection. Many leaders make benevolent and paternalistic use of power, and some seem to enjoy the embarrassment thus caused in their more independent subordinates. Some leaders appear to devote themselves largely to service to others and to gain satisfaction from a feeling of power over them and their lives. Reverting to Fromm's (1941) analysis it can be seen that the authoritarian Nazi leader derived a good deal of his satisfaction from a sadistic use of power. Lee (1950) has taken the position that social science must recognize the power-seeker in society and must recognize, too, society's need of persons so motivated. As he says, however, this is not to assert, as Nietzsche does, that life itself is a will-to-power. It admits simply that there are group members who *need* power and who by virtue of this need are driven to initiate change. It remains true that there are "societal forces and limitations which transcend any will-to-power of individuals" (p. 673).

An interesting experimental verification of this fact has been provided by Beatrice Shriver and quoted by Carter (1953). Groups of four were observed in an emergent leader situation and leadership ratings were made for each member. That member having a rating closest to the group mean was then told prior to a second session that he had shown himself to have most leadership potential and that he should try to assert himself. This he was able to do, actually showing more leader behavior than the man formerly rated highest. At the third session this same man was appointed leader in the group's presence and was asked to continue as leader. Again, his leadership ratings increased over the previous session. Then, at the fourth session, he was given still more power. He was handed four checks, one for four dollars which he was instructed to keep, another for four dollars, one for three, and one for the regular two-dollar fee He was asked, in front of the others, to distribute the checks in terms of the individuals' contributions to the group. At this session the leader behaved much less like a leader than before. Apparently he had been given too much power, and it embarrassed him. He was stunned, irate, and resistant in turn, and was most likely eventually to delay decision making, and to reverse decisions many times, or to require the members to flip coins or shoot darts to decide the distribution. It seems there is a limit to the magnitude of the ordinary individual's desire for power over others.

Status needs. The desire for prestige or status is so widespread that it appears on many lists of fundamental instincts or drives, but it is better described as a motive acquired by a generalization process from specific situations in which pleasure has been experienced in association with a position of high status. The higher levels of status are believed to be, and usually are, the more pleasant to occupy. They involve more power and influence and they may bring higher financial returns. But the important factor in considering status as a motive in itself is that higher status gives entrée into attractive associations, it makes possible friendships and group memberships which, in turn, tend to maintain status and thus to satisfy important ego needs. This may indeed be one of the most important, and most general, satisfactions, to be had from occupancy of a leader role in any group.

To some extent the significance of this motive is apparent in sociological records of leadership in organizations. Leadership does not enjoy high status in all trade unions, for example. Where it does, there seems to be a tendency to get more efficient leadership. But the relation is by no means so simple as this. Workers who become union leaders must give up some, if not all, of their statuses acquired on the job. Willingness to accept union leadership is, therefore, a function of a ratio of statuses. Furthermore, effective leadership, as we have seen, is dependent upon a fluidity of this role which permits personnel rotation when the situation undergoes a marked change. Whether a union official is willing to vacate his new-found status and return to the job also depends upon a ratio of statuses. In relatively low status industrial organizations, therefore, the pattern is one of tenure of leadership roles, because a severe loss

of status would be suffered by return to the job. Unions of workers in high-status jobs have, on the other hand, a very unstable leadership or leadership by the comparatively inept. Such a process helps greatly in understanding the prevalence of lawyers and industrial magnates in political office.

UNSOUGHT LEADERSHIP

The discussion of the preceding section has implied that leaders are motivated to *seek* as well as to enjoy leadership. This is not necessarily so. There are recognized leaders who may gain satisfaction, especially for status needs, from their leadership, but whose occupancy of the role has been unsought. It is even possible to imagine leaders, especially in science and in the creative arts, who gain little or no satisfaction from their high status but whose positions have been incidental effects of other motives. It may be said, of course, that the great artist or the eminent scientist does not have a group to lead in the sense that a military officer or even a union official has. But the influence of such a man in an interactional situation is undeniable.

However, even within small groups there is an observed correlation between leadership and creativity. Creation, particularly of the beautiful, is highly valued and attention turns to the creative group member. At least within the area of his creative genius he will be followed, imitated, and admired. Our valuation of eminence, prestige, and status itself is such that a man will often be followed in an area quite beyond that in which he makes his contribution He thus becomes a kind of "projected" leader, despite the fact that he may be able to contribute no more than the average follower in these new situations.

THE SATISFACTIONS OF FOLLOWERSHIP

The permanence of leader-follower differentiation within groups is sufficient proof that there are, in this relation, rewards for those who follow just as there are for the leaders themselves. The frequency with which groups "propel" one of their members to leadership and the readiness of followers to embrace leadership indicate the existence of strong needs of followership. This is not to claim, of course, that some persons have a need-to-follow *per se,* though this could also be true. The notion of primitive dominance which has been frequently evoked to explain the will to lead has as its corollary a notion of submissiveness as a basic need in those who follow. There are in many of us strong dependency needs, as we shall see. But here it is our argument only that there must be satisfactions in followership which provide a great part of the energy of leader-follower dynamics.

Assistance in problem solution. It is a basic postulate of leadership that the successful leader is one who can help group members solve their group problems and achieve their goals. The more the leader helps other members achieve their goals the more readily will those members follow the leader's suggestions and express satisfaction with his conduct. Pelz's (1951) research found this principle to hold even in a hierarchical organization. There the valued supervisors were those whose organization positions enabled them to contribute most to the goal achievement of their men. The employees gained satisfaction from the helpful behavior of their supervisors.

There are implications from other studies, too, that needs for assistance in problem solution are an important part of the psychodynamics of the leader-follower relation. This "instrumental" perception of the leader appears in Jennings' (1943) analysis. Her "overchosen" subjects are persons who are recognized by other personalities in the group as gifted intellectually and emotionally to aid them to cope with their individual needs and problems. It appeared again, as we have seen, in Bales' (1953) studies.

Generalization of these findings gains support from surveys of the attitudes of enlisted men in World War II. In evaluating leadership qualities of their noncoms, 49 percent of these men listed as most important "ability to help and advise the men under him," while another 35 percent listed first "ability to explain things clearly" This is in marked contrast to the listing of "ability to carry out orders promptly and accurately" by 87 percent of officers evaluating the same noncoms (Stouffer *et al.,* 1949). In yet another study of actual military leadership, Flanagan (1952) collected records of critical incidents and these are found to include one major area labelled "Accepting responsibility for contributing to achievement of group goals." Other minor categories include such things as "Set example for men by remaining calm and efficient under fire," "Went ahead to check for mine fields or booby traps," "Exposed self to enemy fire to rescue wounded," and so on. Whether one groups these in an area of personal bravery, as Flanagan does, or simply recognizes in them the appreciation of the men for assistance in problem solution, it is clear that the leader is again perceived as an instru-

ment of satisfaction, and in this sense the men need their leader

Vicarious satisfaction through identification Followers, as complete persons, have many and strong needs other than those for assistance in problem solution. In understanding the operation of some of these other needs in the leadership relation the Freudian concept of "identification" proves useful, even though the exact connotation of this concept is not quite clear. It is Freud's hypothesis that a child early establishes a primitive "identification" with the protective adult. Apparently "identification" stands for the incorporation of the qualities of a powerful figure in one's mental system. Freud writes as if identification provides a means of incorporating the strength of another in ourselves. We can identify with strong individuals and with groups The classic example of the vicarious strength obtained through identification is found in the small boy's assertion "My dad can whip your father." The individual feels strong if he has a close tie with another strong person. He forges this tie by becoming a follower, and thereby becoming necessary to his stronger fellow as a means to the latter's satisfaction of needs to lead. Again, the reciprocity of the satisfactions appears as a key to understanding the behavior of either element.

Because of the possibility of identification, it is in the interests of individuals to form strong groups and to create strong leadership These things are achieved by devoted followership. Paradoxical as it may seem, followership may represent to the follower satisfactions of status needs very similar to those represented to the leader by his leadership.

Dependency needs. Psychoanalytic theorists have also stressed a view of leadership according to which the leader stands in a father relation to the led and utilizes many of the unconscious attitudes built up in the follower during childhood as part of the relation to the father Freud saw these attitudes as basically those of dependence, and interpreted them as the continuation throughout life of early, essentially sexual, bonds with the parents. Fromm (1941) also sees this phenomenon of parental dependence as highly important in the understanding of social behavior, but he has freed it of its primarily sexual character in such a way that it now seems to transfer more rationally to such relationships as that of teacher with pupil, psychoanalyst with patient, and leader with follower. He suggests that as long as the infant is small it is quite naturally dependent on the parents, that "when the parents, acting as the agents of society, start to suppress the child's spontaneity and independence, the growing child feels more and more unable to stand on its own feet; it, therefore, seeks for the magic helper and often makes the parents the personification of 'him'" (p. 178). Later on these feelings of dependence and the need for a "magic helper" are transferred to other persons, for instance teacher, spouse, or leader. There seems to be no doubt but that the great power of some leaders in special group circumstances is derived from this kind of dynamic interchange. The leader becomes the object for transference of these long-established feelings of dependence and submissiveness in his followers

While everyone is, at times, subject to such feelings of dependency and submission in relation to power figures, there is, of course, a wide variation of degree. There are many factors associated with variations in degree of dependency. Among these Freud recognized prestige of, or impression of power given by, the leader and the kind of group setting. Dependency upon the leader is more pronounced in autocracy than in democracy, although there is, of course, nothing to suggest which of these is cause and which effect. Also, in times of great stress greater dependence is shown, persons tend to seek a guide and savior, and it is under such conditions that autocratic leadership flourishes.

Ambivalence of attitudes toward the leader Whatever the culture, followers have an ambivalent attitude toward the leader. Satisfactions of dependency needs are rarely without conflict for the individual. Particularly is this true for the male adult, since in most cultures he is less free to express dependence and seems to sacrifice virility by doing so. Men, particularly, follow their leader and support him with affection, admiration, and awe, but restrict his power and impose hardships upon him by reason of their ambivalent antipathy. Almost any leader-follower relation one can think of involves this ambivalence because the follower needs the leader and his control but does not want to be exploited. Murphy (1947, pp. 845-846) has suggested that the father "may be an object of fear in one mood; in another an object of affection. The same is true of all the father surrogates, all the grandfathers and uncles, all the policemen and martial heroes, all the kings, presidents and popes, who derive their first place in the child's experience as configural duplicates of his first experiences." It does seem that each individual has conflicting needs for dependence and for independence which are involved in his every interaction with persons in authority. As we have argued earlier, be-

cause leader-follower differentiations persist we can only conclude that the credit balance of satisfactions lies in followership and, therefore, that positive attitudes toward the leader tend to be dominant. On the other hand, this conception of ambivalence suggests the explosiveness of the leader-follower relation. It is axiomatic that in the course of group life frustrations will occur, and it is to be expected that there will, from time to time, be hostile and aggressive outbursts against the leader. Especially is this the case, of course, when the leadership has been of a relatively coercive variety. Krech and Crutchfield (1948, p. 421) comment: "It is astounding to see the savageness with which a previously loved leader may be repudiated and excoriated by the group. Just as the leader may contribute an ideal object for positive emotional feelings, so he may serve as a perfect target for the aggressions of the frustrated, disappointed, disillusioned group." The repudiation of both Hitler and Mussolini by large numbers of former followers well exemplifies this, even though there still are many whose devotion to those defeated leaders is unshaken.

There is, however, another interesting effect of ambivalence toward the leader which should be mentioned here. Fromm (1941) has hypothesized that much of the fanatical strength of positive feeling for the leader is really due to the ambivalent antipathy toward him. He sees a tendency to repress the feeling of hatred and to replace it by a feeling of admiration. This serves to circumvent the antipathy, because if I believe that the person who dominates me is very wonderful or perfect, then I need not be ashamed of submission to him and there is no motivation toward equality with him, since he is so strong, so wise, so very superior.

THE EMOTIONAL RELATION OF LEADER TO LED

A much-needed job in the psychology of interpersonal relations is the description of possible emotional relations between group members and the designation of those which have been regarded as leadership relations. It seems, at the present time, as if one can safely talk about two kinds of relations between members in a group and some sort of "central person." The emotions of fear and love, in a psychoanalytic sense, or some form of liking, seem to play the most important roles in leader-follower relations. These two emotions help to define the nature of the relation in several recognizable forms. When there is a high degree of love and a high degree of fear, the relation is that which is commononly known as patriarchy or, sometimes, paternalism. The emotion is that of awe. When there is a high degree of fear and little or no love, the relation is that ordinarily called tyranny In Redl's (1942) terms this influence relationship results from an identification through fear. The central person with whom member relations are characterized by little of any emotion, whether love or fear, stands in the position of "organizer." He meets the criterion of leadership to the extent that he moves the group in the direction of its goal, but he engenders little or no emotion toward himself. In its pure form this type of relation is probably rare, largely because we all have long-standing patterns of emotional response to persons in authority roles. Finally, that relation which incorporates a high degree of love and little or no fear is leadership in its narrow or "pure" sense.

So far as the individual follower is concerned, under patriarchy he wants to act in such a way as to win the approval of the power figure; under tyranny he accepts direction because he fears the consequences of not doing so, his behavior with respect to the organizer is purely rational, a service is offered and he accepts it as a means to his individual goals; finally, he follows the "true" leader because he wishes to be more like him and through this identity of behavior to strengthen his emotional ties with the power figure.

Delegated leadership or headship. Dynamic elements similar to those just discussed may characterize relations between heads and subordinates, but other more subtle relations are also involved In this case loyalty is primarily directed towards the institution, of which the head is a delegate varying from a puppet or a mere symbolic representative to an efficient executive. The subordinates depend upon the institution and its fixed machinery, rather than on the head, to discover and express and satisfy their needs. This relation is typically represented by the executive in a big modern business corporation. He cannot compare with his employees in the performance of any one of their several tasks. He is not one of the group and it is not oriented primarily towards him. In fact, the group will generally have a "natural" leader of its own choosing, and the executive is in danger of directing a formed society from without. That he can do this, however, suggests some substance to the relation. When we examine the motives in such a group we find that such a "leadership" relation is possible only because the group is part of a larger economic and political organization which the member already accepts on other grounds. The

executive is accepted as a delegate of a power already bound to the individual's motivations.

Comradely "rapport." This term was suggested by Cattell to name a kind of influence relationship about which little is yet known. Whitehead (1936), in studying the output fluctuations of a small group of workers over four years, observed that, unknown to the workers, there were distinct correlations of fluctuation curves between certain workers. These might have been due to common environmental causes, but the fact that the correlation was far greater between two individuals having obvious psychological "rapport" is against such a view. In fact, Whitehead observed that while "mutual sentiments of approval" resulted in positive correlations, it was also true that personal antagonisms produced negative correlations and zero correlations were associated with mutual indifference. There was a tendency for one individual, however, to set the rate of fluctuations for most of the group.

Here we are, perhaps, dealing with an emotional and behavioral contagion in the sense that Polansky, Lippitt, and Redl (1950) have since used this term. For them, contagion is a social influence phenomenon in which the initiator does not openly communicate any intention to influence. It may well be that "contagion" is a highly important embryonic form of leadership, the study of which may reveal a great deal about the emotional relation of leader to led. We are dealing here with a type of relation which occurs in many associations of a sociable, friendly kind and which has been frequently studied as leadership by, for example, Jennings, but which would better be called friendship and popularity influence, unconscious and unstructured, or simply *contagion.*

Types of Leadership

One of the basic distinctions of this chapter has been between heads and leaders. Leaders can be classified according to a number of principles. Using degree of contact with those who are led, one might devise such a set of categories as (1) persuasive leaders, who are in very close contact with followers, (2) dominant leaders, who have less contact with followers although they are keenly aware of their problems, (3) institutional leaders or heads, who may not be group members at all but who exercise a kind of delegated leadership, (4) leadership of the expert who indirectly influences the thoughts and actions of people he never sees, and sometimes long after his death. Again, one might use mode of selection as a classificatory device and develop such categories as: (1) self-appointed leaders who achieve their position by self-assertion, determination, and dominance, (2) group-appointed leaders chosen by the group members themselves, and (3) executive-appointed leaders or heads who represent superior echelons of an organization and frequently direct the group from outside itself. Yet again, leaders can be classified according to interests. Here the possible categories are almost limitless, but such examples have been mentioned as: (1) intellectual, (2) artistic, and (3) executive leaders. By far the most common form of classification has been in terms of leadership style or manner of exerting influence, and the terms generally used to designate the opposing poles of this continuum are "autocratic" (authoritarian) and "democratic" leadership.

AUTHORITARIAN LEADERSHIP

The authoritarian-democratic continuum represents a descriptive characteristic of almost all forms of authority relationship. Certainly both headship and leadership may vary with respect to this dimension. It will be recalled that the essential difference between these two forms of relation is in their sources of power. In the one case this is conferred by the group and derived from the group's potency for its members In the other case, it stems from a larger organization of which the group is but a part, and is exerted by virtue of an external power over the group wielded by the head. Authoritarian headship differs considerably from authoritarian leadership, although it is frequently confused with it when head-leader distinctions are not made. The authoritarian head has, by virtue of his delegated power, the privilege of rewarding or withholding rewards as he wishes. He may be domineering and dictatorial in his relations with subordinates. At the same time, because of his privileged position with respect to the organization, his behavior can come close to the *laissez-faire* pole of group control, while he still retains his headship. As compared with the head, the leader is more restricted in his behavior, both as regards the degree of authoritarian control he can exert and the degree of *laissez-faire* he can get away with. The arcs inscribed on the familiar Lewinian triangle in Fig. 1 indicate this conception schematically. Leaders may be more or less authoritarian, that is, may give directions and make decisions with-
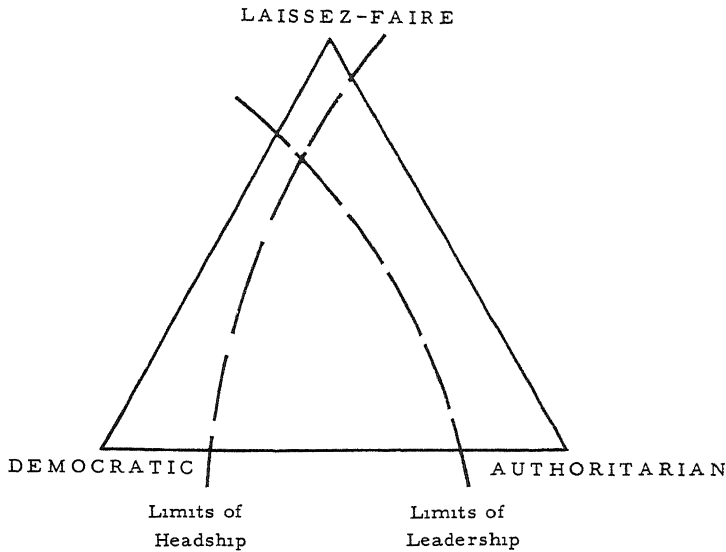
FIGURE 1.

out consultation, but they must remain within the limits of a kind of social contract between themselves and the sponsoring group members. This means that an authoritarian leader cannot be as authoritarian as can a head

The basic psychological meaning of authoritarian leadership has nowhere been spelled out. It obviously depends largely on the dynamics of the drive rewards which we have described under the headings of primitive dominance, vicarious satisfaction, dependency needs, and the like Nevertheless, it would be a mistake to assume that the autocrat controls the group ultimately only by the threat of physical force, denying any satisfaction to group needs other than those created by fear Obviously, one man cannot do this. He must satisfy and reward the group's psychological needs much as does the democratic leader. He must control psychologically But as Cattell, in a personal communication, has pointed out, "we may notice two important differences in the psychological accounts (1) the autocratic leader creates needs, e g., by bringing to the group fear, insecurity, and frustration by which they were not originally stimulated, and (2) he exploits regressive, primitive, unconscious needs instead of helping the group to outgrow them, e.g., father dependence, vicarious satisfaction through identification, superego projection in place of individual conscience."

The authoritarian leader, and still more the authoritarian head, must himself remain the focus of group attention. He will need to emphasize obedience, again focused particularly on himself. Krech and Crutchfield (1948) have expressed this need of the authoritarian leader by saying that he must maintain segregation within the group and must see that intragroup communication is kept to a minimum except insofar as it is through him and focused upon him. In this way he renders himself the key to all group action and eventually becomes indispensable. For the group this has two disadvantages. (1) withdrawal of the leader precipitates a crisis and even possible dissolution, (2) reduced opportunity for interpersonal communication within the group reduces the morale of the group so that it will be less able to withstand attack and strain

DEMOCRATIC VS AUTHORITARIAN LEADERSHIP

Democratic leadership is, in most respects, the direct antithesis of the authoritarian pattern described above. It is associated mainly with relationships in which there are shared satisfactions and a mutual respect of leader and led for one another. Even with apparently adequate reward, men object to being used as the means to another's ends, because the loss of personal autonomy is itself the frustration of a basic need. The democratic leader has the complex problem of giving each individual satisfaction as an individual, protecting the group as a whole, and satisfying his own aspirations or

benevolent intentions He does not necessarily differ from the authoritarian leader in the amount or extent of his power, but he has a different role or pattern of roles in the group structure

> The democratic leader seeks to evoke the maximum involvement and the participation of every member in the group activities and in the determination of objectives He seeks to spread responsibility rather than to concentrate it. He seeks to encourage and reinforce interpersonal contacts and relations throughout the group structure so as to strengthen it. He seeks to reduce intragroup tension and conflict. He seeks to avoid hierarchical group structure in which special privilege and status differentials predominate. (Krech and Crutchfield, 1948, p. 426)

Values and limitations of democratic leadership. Leadership is a means, rather than an end in itself. Evaluation of leadership technique must, therefore, be in relation to the goal of group behavior or in relation to group values Since there is a great variety of goals in any group at any time, there are many ways to evaluate leadership technique. In some respects the democratic technique has decided advantages, but it does have limitations and there are circumstances and goals which seem to give advantages to authoritarianism. Whatever the group goal, however, the effectiveness of any leadership technique lies in its acceptability to the followers, and whether authoritarian or democratic techniques are more efficient frequently depends upon the expectations of the followers, as many studies have now shown. Lippitt, and White (1943), observed that individuals differed in their response to and satisfaction with these different techniques and that authoritarian methods were less effective with groups which had experienced the democratic techniques. Sanford's (1950) study seems conclusive in this respect. Authoritarian personalities prefer status-laden leadership, accept strongly directive leadership, and regard the authoritarian leader as "better" than his more democratic counterpart. They tend to express open hostility towards a leader as soon as he reveals any signs of "weakness." Equalitarian personalities accept authoritarian leadership only as the circumstances demand it. Many studies, particularly of the German culture, have given support to the hypothesis that authoritarian leadership is more highly valued, and more efficient, in authoritarian cultures. The evaluation of the next few paragraphs, which derives primarily from Haiman (1950), must be understood, then, in relation to the culture of the United States.

One of the principal advantages of the democratic technique is its evocation of maximum *participation* from all group members It is an educational axiom that persons understand more fully those things they have themselves experienced, and they grasp more completely those ideas in the formulation of which they have participated. Research has shown, and most teachers have experiential confirmation, that students retain more knowledge from discussion in which they have participated than from lectures, however well constructed and delivered.

Closely allied to the values of participation is the fact that *group decisions* which have been arrived at by group members interactively, and as a synthesis of their own efforts, elicit more solid support and issue into action more frequently than do those which are handed down authoritatively Lewin, in 1943 (Lewin, 1947), produced evidence of this superior effectiveness of group decision in leading to action. Traditional methods of advertising and of lecturing had been employed in an effort to persuade housewives to make use of meats high in food value but not previously popular in this country A controlled experiment was set up in which these traditional methods were compared with the method of group decision by which housewives met in groups to discuss this problem in the presence of a nutritional expert who, under control conditions, would have been a lecturer on this topic. Through this resource person it was contrived to give the discussion groups the same technical information as was imparted in lectures to the control audiences. Through group discussion the housewives made their own decision to try these new dishes It was then found that the women who were in the groups which made the decisions, themselves implemented those decisions in a much greater proportion of cases. Since this pioneer work many studies in industry and elsewhere have confirmed the effectiveness of group decision. (It is a powerful device for attitude and behavior change which is available to the democratic leader and part of his technique, but which could rarely, if ever, be employed by the authoritarian.)

Because it shares decision-making and other responsibilities, democratic leadership enables a group to make maximum use of the relevant individual differences existing within it It *releases creativity* in group members because it can tolerate temporary or specific transfer of power and influence in a way that authoritarianism cannot. The authoritarian leader seeks to retain power by monopolizing knowl-

edge and initiatory action, whereas the democratic leader gains strength by utilizing the full capacity of the group This does not always point the way to greater efficiency, however Shaw's (1932) early studies comparing group and individual problem solution showed that, in general, groups obtained a much larger proportion of correct solutions than individuals did But the protocols show that while some groups cooperated well, others did not, and that some groups solved all problems very quickly but always incorrectly, other groups spent so long checking errors and meeting all conditions of the task that their performance could hardly be called efficient. Dashiell (1935) showed experimentally that jury reports, after discussion, were less complete than those of individual witnesses or jurors, but that they were more accurate Thus the release of creativity may not, in all circumstances, represent efficiency On the other hand, to the extent that participation and expression of creativity are themselves valued and enjoyed, democratic leadership has distinct advantages

The *cohesiveness* or viscidity of a group is found to be generally higher under conditions of democratic leadership The Lippitt experiment previously mentioned found that under democratic control children formed a stronger, more durable group, which suffered much less disruption of activity in the absence of the adult leader, than they did under other forms of control. Although the dynamics of the leader-follower relation already described also point to this greater stability and cohesiveness of the democratically led group, this is a finding which demands limitation and qualification. Cohesiveness and high morale are largely the result of having one's expectations fulfilled We have already seen the importance of this concept and it has been shown that democratic or permissive leadership can frustrate and make an autocratically oriented group unhappy just as authoritarian control can demoralize a democratically oriented group. One of Scott's (1952) findings seems to confirm this suggestion. Among naval ship's crews it seems that morale is highest in those units where leadership is less permissive and where leaders insist on relatively formal relationships between superior and subordinate. Additional research and analysis are needed to determine the types of group situations in which each kind of leadership is effective.

It is common in our culture at the present time to place negative values on authoritarian leadership. Much of this attitude seems to be due to a prolonged period of ideological opposition to cultures authoritarianly organized. The tendency is to think of authoritarianism in its most extreme form of headship, and to denounce all forms of individual authority over others Studies of groups in action reveal that in certain circumstances authoritarian leadership is highly valued There is in the American culture an ambivalence about leadership technique, and morale is sometimes higher and satisfactions maximized when more authoritarian techniques are employed The nature of the group task is an important determinant of the leadership technique which emerges in that group In general, it can be said that emerging leadership in temporary groups is more democratic, more permissive, and less dominant (a) when the situation is one in which no member can feel himself more competent than others, (b) when appropriate techniques of communication are not known or not well understood, and (c) when the situation arouses strong attitudes regarding the private rights of all group members Conversely, emergent leadership is more authoritarian, more dictatorial, and more restrictive when (a) speed and efficiency are emphasized to the point of outweighing the formalities, and (b) when the novelty of the situation for each member precludes his ego-involvement with particular procedures, so that he does not interpret direction as being in any way critical of his ability. If the group is faced with a need for emergency action, then that leader behavior is most effective which is prompt and decisive and which is perceived by the members as likely to remove quickly the threats in the situation. Authoritarian leadership is practically demanded under such circumstances

It behooves the psychologist, above all others, to recognize the facts of individual inequality While men may be equal in rights and in the democratic ideology, they are not, in fact, equal in education, ability, or personality development. It is an axiom of group development that there is differentiation of roles along the lines of perceived individual differences This fact alone requires that individuals be permitted differential influence if group progress is to be maximal To admit the superior wisdom of any expert is to admit some degree of authoritarianism. It is important for the use we can make of our resources and of our groups that we recognize authoritarianism and democracy as poles of a continuum, neither of which is wholly good or wholly bad, but which represent extremes of a variable "leadership technique" that should be adapted to all the elements of the situation — culture, personality content, structural interrelations, syntality, and task.

Symbolic leadership Among the many leadership patterns intermediate between pure democracy and pure autocracy, one of particular interest is that in which the dominating force is an idea or symbol, rather than a person This form of influence relationship has the democratic feature of the willing acceptance of a principle but it has also the autocratic feature of unelected rule. Of this pattern Cattell has written interestingly·

> We find that those who maintain with William Morris that "No man is good enough to be another man's master" may yet be prepared to make all people slaves of a finite idea and assert that service to the state comes above all individual rights Thus, communism or fascism, or a religious community highly organized in dogma, sets the mechanism of "purges," "liquidations," or "excommunications" in motion to crush the individual who listens to his own reason or conscience instead of giving complete allegiance to the specific -ism. (1950, personal communication)

It is clear that many of the same psychodynamic mechanisms of dominance, submissiveness or dependency, and identification which occur in relation to autocratic personal leadership occur also in the dictatorship of an -ism The intensity of the emotional relation to the symbol and its location on the authoritarian-democratic continuum all vary according to the breadth of the idea or symbol concerned The broader the idea the more permissively it may be promulgated and the more democratically persons may subscribe to it

The Phenomena of Succession

In nearly all groups one leader follows another Even within traditionless, laboratory groups, leadership emerges early and what one observes primarily are changes of leadership, whether this be simply a modification of behavior or a real turnover in personnel It follows, then, that an important part of the situation for any newly succedent leader derives from the behavior of his predecessor. It is not that behavior, as such, with which the successor is concerned, but it will have had consequences which are now reflected in the expectations of the members, in the structure of their interpersonal relations, in their morale, and in other syntality dimensions. With these the new leader is concerned, and he must adapt his behavior to them. Some attention has been given this problem by sociologists (Gouldner, 1950) but no well-developed theory of succession yet exists.

Attempts to explore factors determining the *emergence* of leadership in groups have been singularly unsuccessful. Polansky, Lippitt, and Redl (1950), who studied behavioral contagion in camp groups, reported that

> Likelihood of initiating behavioral contagion is a function of (i) security to act spontaneously because of perception of own positions, (ii) attributed group positions, (iii) possibility of communicating with the group, ecologically and psychologically, (iv) degree to which individual reactions are representative of common states of needs present in the group (p. 347)

Just what it was that determined high attributed position and why one group member rather than another should have been favored with respect to communication possibilities were not revealed. A later report (Lippitt, Polansky, Rosen, 1952) suggests that attributed power choices were highly related to child judgments of physical prowess and personal liking This conclusion is reminiscent of Gibb's finding (1950) that something of the value one individual has in the eyes of another, which must partially determine his leadership status, is already evident at the stage of a first impression Emergence as leader cannot yet be fully explained by personality attributes, or by abilities, or by ratios of these to the needs of the group, although all of these are significant The final determiners of the rise to leadership remain somewhat of a mystery

Mode of succession Concern with this kind of problem has focused attention upon the mode of accession to leadership as a source of explanation for some of the empirical findings There is a wide variety of such modes, and these help to explain some of the characteristics of leaders and some of the variations in leader behavior. One route by which leaders succeed to power is that of heredity. To the extent that ability and personality traits are hereditarily determined leaders or headmen by this route are likely to resemble their predecessors and, as a group, may even show characteristics which differentiate them from followers or subordinates Yet these differential attributes may be in no meaningful way associated with leadership skill or technique. The most outstanding example of this fact which comes readily to mind is the hemophilia of one of Europe's more important royal lines.

The two most frequent and important modes of accession to positions of authority are, however, group recognition or election and executive appointment. Carter (1953) found quite

surprising differences in the behavior of leaders of laboratory groups depending upon which of these forms of sponsorship was employed It appeared that in the appointed condition the leader perceived his role as that of a coordinator of activity or as that of an agent through which the group could accomplish its goal. Where the leader was permitted to emerge with group sponsorship he took over by energetic action In other words, the behavior of the group-sponsored leader was more "authoritarian" than that of the appointed leader. Shriver (Carter, 1953) followed up the implications of this study to investigate the effect of increasing the formality and power of the appointed leader As we have seen, she found that one could be given too much power and that under its weight all leader behavior tended to disappear.

While this situation in the experimental group may seem complex enough, much greater complexity confronts the sociologist who would study succession and sponsorship in organizations which have already a long history and a tradition behind them Thorndike (1940) has identified four principal processes by which persons in authority are sponsored (1) by majorities, (2) by cooption by a governing class, (3) by blocs, (4) by trustees for the public. Kornhauser has pointed to the fact that even "the color of a man's skin may lead to his sponsorship for or exclusion from a job Therefore it is a career contingency for him The color of a man's skin may have power or status or other functions for an organization or looser work group Therefore, it is a control contingency for those in power" (1952, p 452).

It can, of course, be said that our formula that the leader will be a person who contributes maximally to the solution of group problems still holds here The point we are trying to stress, in this formula, is that "group problems" refers to the sponsoring group, and that meaningful explanation demands the identification of that group, and probably requires some description of its relations with other groups, particularly other groups which will come under the influence of the leader thus sponsored

This is never more clear than when we consider the case of headship, where the sponsoring group is superior management or a governing class. In this case the mode of succession may be called executive appointment or cooptation depending upon the degree to which the new appointee is absorbed into the already existing leadership or is left relatively independent, merely gaining support from the backing of a management clique This power of incumbent leaders to determine their own succession and to influence future leadership cannot be overlooked Commonly they compel the group to select their own kind, as when the Nazi regime set up machinery for inducting leaders of the same temperamental makeup as the incumbents themselves At the very least it must certainly be true that where succession to leadership is determined by appointment from above the persons so chosen are perceived to meet the needs of the superior sponsoring group and to owe their primary obligations to higher echelons of control They may or may not be able to function as instruments of satisfaction for their subordinates Finally, it is in these circumstances that the obligations of the leader to his predecessor stand out most clearly.

Probably the most common way in which a newly succeeded leader must meet obligations to his predecessor is through his obligations to the norms and institutional rules of the group. This is a feature of the leader-group relation without which no leadership phenomena can be really understood. To succeed to leadership at all, an individual must first be established as a member of the group. He must be perceived as "one of us" by group members This he is more likely to be if he shares their group norms Frequent comment is made about the difficulty replacement officers had in establishing themselves in combat units. Here, of course, there is a militarily prescribed "distance" between the "leader" and his men, and this is emphasized by outward symbols of rank. But far more important is the less frequently mentioned fact that these newcomers were not perceived as sharing in the norms of the group. Many times they had not yet been in combat and could not have an understanding of the unofficial rules which had grown out of that experience. For this reason it was often observed that in combat units, after officers and men had shared the common experiences of deprivation and fear, the attitudes of the men toward their officer were more genuinely those of follower toward leader. "Distance" had been reduced, although the symbols remained.

Toward a Theory of Leadership

We have examined at least three possible theories of leadership. One looks upon leadership as a *unitary trait* that will characterize leaders wherever they may be found. It is necessary for this theory that all kinds of leaders in all kinds of situations and cultures reveal this trait, and that only leaders should do so. Clearly, no such unitary trait has been found. Different

cultures are known to produce different types of leaders Within a single culture an individual may lead in a particular situation because of his intelligence, special knowledge, special skills, special abilities, or personality traits. No contemporary scientific champion of this theory can be found, although laymen still accept it Many schools, for example, take pride in their "leadership training" programs and regard their function as that of recognizing children who have "leadership capacity" and of providing opportunity for those children to exercise this capacity in numerous and varied authoritarian situations

True, there are certain traits quite commonly found in leaders, particularly if the kind of leadership studied is limited in some way Thus leaders in face-to-face group situations have frequently been characterized as (1) energetic, (2) self-confident, (3) intelligent, (4) verbally fluent, (5) persistent, and (6) having insight into human nature It has been claimed that this group of traits characterizes fairly well such diverse leaders as Hitler, Stalin, Eisenhower, John L Lewis, and Aimee Semple McPherson. It may be that eventually some such basic core of personal qualifications for leadership will be identified, but present indications are that leadership is not truly unitary, that there is no common trait that is always present to account for leadership in all spheres

A modification of the unitary trait theory may be called the *constellation-of-traits theory* Its assertion is not that there is a unitary trait of leadership, but that in each leader there can be recognized a pattern of traits which constitutes his leadership capacity In this case the pattern may be conceived to vary from the leader in one situation to the leader in another. But it is like the former theory in finding the why of leadership in the personality of leaders. It usually concludes that there is a basic personality pattern for leaders. The elements of this pattern are usually said to be those same traits which the unitary trait theory regards as characteristic of leadership. The constellation theory merely claims a less invariant organization of those elements. Among the arguments advanced in favor of this theory are the following: (1) some individuals have every environmental opportunity to lead but fail to do so, and (2) most leaders do not wait to be propelled to leadership; they aggressively seek out positions of authority and power. On the other hand, it has been pointed out: (1) not all persons who appear to possess the necessary constellation of traits do become leaders, (2) the leader can only follow social trends or, at most, modify them but slightly. He may equally well be viewed as the product of social forces as the determiner of them, and (3) a leader in one situation is not necessarily a leader in other situations.

A third point of view may be referred to as the *interactional theory* Any comprehensive theory of leadership must incorporate and integrate all of the major variables which are now known to be involved, namely, (1) the personality of the leader, (2) the followers with their attitudes, needs, and problems, (3) the group itself both as regards (a) structure of interpersonal relations and (b) syntality characteristics, (4) the situations as determined by physical setting, nature of task, etc. Furthermore, any satisfactory theory must recognize that it will not be these variables *per se* which enter into the leadership relation, but that it is the perception of the leader by himself and by others, the leader's perception of those others, and the shared perception by leader and others of the group and the situation with which we have to deal No doubt Sanford (1952) is right when he predicts that studies focusing on any one of these aspects alone will continue to yield "positive but unexciting correlations" What is needed is a conception in which the complex interactions of these factors can be incorporated No really satisfactory theoretical formulation is yet available.

Leadership is an interactional phenomenon arising when group formation takes place. The emergence of a group structure, whereby each of its members is assigned a relative position within the group depending upon the nature of his interactional relations with all other members, is a general phenomenon and a function of the interaction of individuals engaged in the pursuit of a common goal: But the *relative* role an individual member assumes within the group is determined both by the role needs of the group and by the particular attributes of personality, ability, and skill which differentiate him from other members of the group. However (and this is the crux of the interactional theory), "the role he achieves is determined not by his personal qualities in the abstract but by his standing in relation to his fellow members in the *special qualities* required by the particular group goal or situation" (Sherif, 1948, p. 456). His standing, in turn, is dependent not upon possession of these special qualities as such, but upon the extent to which his fellows *perceive* him as having these qualities. Leadership is a function of personality, and of the social situation, and of these two in interaction.

Such an interactional conception of leader-

ship is not of recent origin One of the earliest experimental studies of leadership (Terman, 1904) assumed something of the pattern in which we are interested Attempted leader selection during World War II reawakened interest in this theory by revealing that selection on the basis of personality was hopelessly inadequate With a return to miniature or quasi-real-life situation testing many of the features of leadership recorded in this chapter appeared clearly Krout (1942) reports a case which illustrates well the interactional nature of the leader-follower relation. In this country in the 1920's an engineer developed a cult and following hardly equalled among modern religious leaders Calling himself "The Great I Am" and claiming to have learned the "secrets of ascended beings," this man marshalled thousands into abject worship There can be little doubt but that this man was insane Yet he became a very considerable leader of a sizable group of people — presumably sane. It is clear that it is not any objective evaluation of his personality that is important What is important is the way other persons perceive this individual's claims and the meaning they give to them in the light of their own personalities, their own needs and attitudes No doubt other persons have made similar claims and have met with derision only One becomes a leader, others are characterized as mad, and the essential difference is not alone in the stimulus individuals but rather in the attitudes and beliefs of the stimulated persons, which determine the latter's response to the stimulus

Another fact of leadership which an interactional theory is best equipped to deal with concerns the effect a leader can have on the dynamics of the group This is much smaller than has generally been thought There are times, when an organized group is moving at a relatively slow pace, that a leader can have considerable effect upon it provided that he remains within the framework of the general group goals On the other hand, when a group is highly polarized a leader may be powerless to divert its attention from its immediate object. The old story of the French revolutionary leader who saw the mob surge by and said to his friend "I am their leader. I must follow them," illustrates this relation well The function of the leader is to embody and to give expression to the needs and wishes of the group and to contribute positively to the satisfaction of those needs. To the extent that he does this he may remain the leader; when he fails to perform this function he will be superseded, and he fails as soon as the followers perceive his needs and his goal to be divergent from their own

The important aspects of this interactional theory are the following First, leadership is always relative to the situation This relativity may be broken down with respect to each of the major variables in the situation. (a) It is relative to the group task and goal. Individual accession to the leader role is dependent upon the group goal, in the sense that the goal determines the needs which he must appear to satisfy by virtue of his particular combination of relevant attributes There is a further dependence upon a group goal insofar as there can be no leadership in the abstract, it must be toward a goal, however weakly that goal may be valued (b) It is relative to group structure or organization Leader behavior is determined in large part by the nature of the organization in which it occurs (c) It is relative to the population characteristics of the group or, in other words, to the attitudes and needs of the followers The leader inevitably embodies many of the qualities of the followers, and the relation between the two may be so close that it is often difficult to determine who affects whom and to what extent For this reason it is possible for leadership to be nominal only

Secondly, the basic psychology of the leadership process is that of social interaction. It is distinctly a quality of a group situation. No individual can be conceived of as a leader until he shares a problem with others, until he communicates with them about the problem, until he has succeeded in enlisting their support in giving expression to his ideas Leader and follower must be united by common goals and aspirations and by a will to lead, on one side, and a will to follow on the other, i e , by a common acceptance of each other. It is a corollary of this principle that the leader must have membership character in the group which sponsors him for that role, because leader and followers are interdependent. The leader must be a member of the group, and must share its norms, its objectives, and its aspirations

Finally, given group-membership character, election to leader status depends upon perception of individual differences It is because there are individual differences of capacity and skill that one of a group emerges as superior to others for meeting particular group needs Followers subordinate themselves, not to an individual whom they perceive as utterly different, but to a member of their group who has superiority at this time and whom they perceive to be fundamentally the same as they are, and who may, at other times, be prepared to follow.

Summary

The phenomena of leadership and followership constitute an important segment of the area of interpersonal relations to which increasing attention is being given by social scientists

Some precursory definition is required of three key terms *group, leader,* and *leader behavior* The term *group* is properly applied only when there is interaction among its constituent members A group is, however, not fully defined by the concept of interaction between members. A functional group may be defined as two or more organisms interacting, in the pursuit of a common goal, in such a way that the existence of many is utilized for the satisfaction of some needs of each The emergence of leadership in a group is part and parcel of a more general differentiation of roles occurring within groups as development proceeds A group in which the members are differentiated as to their responsibilities for the task of approaching the group goal is commonly called an *organization*

Whenever two or more persons interact in the pursuit of a common goal, the relation of leadership and followership soon becomes evident This relation is characterized by influence or control of one group member over others. Identification of the *leader* is by no means simple, however It has sometimes been suggested that he be regarded as the individual occupying a given office, but leadership is frequently apparent before group development has proceeded to the point of designated offices Another suggestion has been that the leader is that individual upon whom the behavior of group members is focused, but a disturbing influence in a group may be the focus of attention and we would not wish to designate him "leader" Yet another procedure regards the leader as that group member who is so chosen by his colleagues Perhaps the most objective criterion of leadership available resides in the measurement of the influence of group members upon one another In order to define the leader as that group member who exercises most influence over his fellows, it is necessary to qualify "influence" by insisting that the term leadership applies only when this is voluntarily accepted or when it is in a "shared direction." When influence derives from a power given to one or a few individuals by a source external to the group itself, the relation is rather that of *headship*. Because of the difficulties involved in using any of these forms of definition it has recently been proposed that attention be given not to designated leaders but to *leader behavior* occurring in a group. Leadership acts may then be defined as the investigator wishes, and leaders are to be identified by the relative frequency with which they engage in such acts.

Early attempts at the description of leader behavior tended to concentrate upon the recognition of personality traits which could be said to characterize all leaders A very wide variety of such traits was explored and while correlations are, in general, positive they are rarely large, and it is clear that only a little of the variance in leader behavior can be accounted for this way There are indications that certain traits, such as intelligence, surgency, dominance, self-confidence, and social participation, are frequently found to characterize leaders of various types, in a variety of situations But, in every instance, the relation of the trait to the leadership role is more meaningful if consideration is given to the detailed nature of the role There is abundant evidence that member personalities do make a difference to group performance, and there is every reason to believe that they affect that aspect of the group's behavior to which the leadership concept applies But other aspects of group behavior, namely, structure, syntality, and task, must also be taken into consideration in attempting a complete description of leader behavior.

Empirical analyses of leader behavior lead us to recognize a limited number of characteristics, among which are technical proficiency, initiating and directing action, showing consideration for followers, production emphasis, and social awareness. Such analyses have led also to a recognition that leadership is differently evaluated from above and below. In an organization, those who hold superior positions to that of the leader or head under consideration expect of him that he will insist upon strict discipline, follow closely standard operating procedures, and emphasize production. On the other hand, the followers expect and value his mingling with them, his use of consultation procedures, his showing consideration for them and their needs, and his being socially sensitive. While this fact emphasizes the difficulties of the criterion problem in leadership studies it can, perhaps, be said that among the most sensitive indices of the "goodness" of leader behavior are the degree to which he maintains open communication channels (both up and down), and the viscidity and polarization of his group.

Different people want different things of leadership. Adoption and performance of the leader role are dependent upon the situation Leadership in a formal organization (headship) differs from leadership in an informal organization both as to its techniques and its emotional relation with followers Even the followers' preference for consideration behavior may be modified in a hierarchical organization, and it appears that the general claim can be made that followers value most highly that leader behavior which contributes maximally to their individual satisfactions obtained through the group Leader behavior is found to be subject to group determination The expectations of followers, the nature of the task, and the institutionalization of the group are all factors in the situation within which the leader behaves and to which he adapts.

Dynamically, the leader-follower relation must represent satisfaction for some of the needs of both the leader and the followers The satisfactions of leadership are primarily those of dominance and status, although there is evidence that not all leader behavior stems from these sources Followers, on the other hand, achieve satisfaction of deep-rooted dependency needs and gain assistance in problem solution But these satisfactions are rarely without conflict either for leaders or for followers Leaders find their instrumental leadership incompatible with popularity, while followers find themselves needing the leader but hating him because of this This basic ambivalence gives rise to the essential dilemma of leadership in a democracy

Leader-follower relations vary along an authoritarian-democratic continuum, one pole of which is characterized by domineering and dictatorial relations with subordinates, while the other implies shared satisfactions and mutual respect of leader and led. Although democratic leadership has certain distinct advantages and is generally highly valued in our culture, it also has its limitations and, in many situations, some degree of authoritarianism is actually preferred

For the most part, the leader of any group, at a given time, is successor to a leader of a previous time. Even studies of the emergence of leadership in small temporary groups find themselves, in fact, observing succession phenomena Predecessors certainly influence leadership in a number of ways They are responsible for certain of the expectations of the leader and for some of the institutional rules, the demands of which any successful leader must meet. They are frequently influential in causing the recognition of their successors. The concept of succession also contributes to the analysis of leadership by focusing attention upon the matter of sponsorship. It is clear that any leader more nearly satisfies the needs of his sponsors than he does of any other group or subgroup within an organization.

Leadership is an interactional phenomenon, and interaction theory seems best fitted to provide a framework for studies of leadership. The emergence of group structure and the differentiation of function of group members depend upon the interaction of those members, and are general group phenomena An individual's assumption of the leader role depends not only upon the role needs of the group and upon his individual attributes of personality, but also upon the members' perception of him as filling the group role requirements. These, in turn, vary as the situation and the task alter. In general, it may be said that leadership is a function of personality and of the social situation, and of these two in interaction.

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CHAPTER 25

Culture and Behavior

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"It seems a vain effort to search for sociological laws disregarding what should be called social psychology, namely, the reaction of the individual to culture They can be no more than empty formulas that can be imbued with life only by taking account of individual behavior in cultural settings."

—Franz Boas, Presidential Address to the American Association for the Advancement of Science, 1932

In recent behavioral science the most general categories for the explanation of regularities and diversities in human behavior have been biological heredity (general to the species or specific to groups or to particular individuals), situation (including physical environment and social interaction), and culture At a high level of abstraction each of these three concepts is a genuine aid to understanding. But when it comes to explaining and predicting concrete events any single category will take us only a very limited distance. Certain established biological potentialities and limitations of the human species define some of the parameters of human behavior. Individuals who carry the genes for Huntington's chorea or juvenile amaurotic idiocy will behave in similar ways in whatever situation and in whatever culture Yet of the five hundred odd single gene substitutions in man for which there is now good evidence only a trifling number directly determine behavioral variations A few statements about the behavioral consequences of extremes of altitude, temperature, and other features of the physical situation can be made which are more or less independent of biological stock or individual inheritance and of culture. Some propositions about dyadic or other precisely defined social relationships have a high order of probability across cultures and biological populations If I know the cultures of Wogeo and Masai I can predict successfully the distinctive modalities of behavior in male-female relations in the two groups without regard to the possible differences in their genetic composition and situation. All, however, of these and other possible statements on the basis of a single explanatory category are of a commonplace, or at least of a gross and abstract, order.

The principal questions raised by serious students of human behavior today almost invariably involve an interrelationship between two or more of the basic abstract factors. Except for reflexes and behavior under conditions of maximal physiological stress, human beings do not behave simply as biological organisms. They respond to stimuli and to situations, but not with the regularity of a machine. The human response is, overwhelmingly, to the stimulus or stimulus-situation as defined and interpreted in accord with man-made patterns (i.e., culture).

*I gratefully acknowledge the research assistance of Barbara Hills and John Waggoner and the very helpful criticisms and suggestions of David Aberle, Ethel Albert, Gordon Allport, William Caudill, George Devereux, Abraham Edel, Raymond Firth, Thomas Gladwin, Jules Henry, John Honigmann, Francis Hsu, Alex Inkeles, Weston LaBarre, Dorothy Lee, Barrington Moore, Jr, Talcott Parsons, David Riesman, John Roberts, David M. Schneider, Evon Vogt, and Carter Zeleznik The extended theoretical comments of Margaret Lantis were particularly helpful, leading to major revisions which incorporate some of Dr Lantis' ideas and phrases. The assistance of Mrs. Hills and Mr. Waggoner was made possible by a grant from the Grants in Aid program of the Behavioral Sciences Division of the Ford Foundation. This permitted a much more thorough review of the literature than would otherwise have been feasible. Earlier work on this paper was made possible by a fellowship from the Wenner-Gren Foundation for Anthropological Research, which permitted extensive reading and freedom from other duties. Some of the theoretical materials in the introductory and concluding sections are drawn — in revised form — from a joint monograph (1952) by A L. Kroeber and the writer, and my thanks go to Dr. Kroeber for permitting the re-use of these materials. My secretary, Muriel Levin, has made a real contribution to this paper.

Actually, when we look at any complex assemblage of events it is clear that culture (the precipitate of history), situation, and the idiosyncracies of individuals (determined, in turn, by a unique combination of biological, experiential, and cultural influences) are all intricately intertwined. As Hodgen (1952) says

> The historically important thing in regard to natural resources is man's attitude toward them It was not the availability of iron that created the Iron Age in Britain, nor the presence of coal that ushered in the Industrial Revolution, but the initiative of certain men at particular moments in time in finding a use for these mineral riches of the earth. The modifications or changes that have taken place in mechanical contrivances follow and tangibly employ prior modifications and changes in the purposes of human tool-makers and tool-users The conversion of an agricultural parish in England into an industrialized community, the adoption of a new tool, or the incorporation of a new technique of production into a small, local cultural system has occurred early or late in time, here or there in space, as dictated by human will Human geography demands as much knowledge of human beings as of geography (pp 74-75)

Recognizing the interdependence of the several variables, social scientists have devised secondary categories, such as life experience, learning, and motivation. Each of these is also useful. An adult's behavior is seldom totally determined, except as to minute details, by his inherited genetic make-up. His environment, including his nutrition, and the illnesses and other biological vicissitudes of his life have also contributed to his constitution at any given point in time. Nor is any person's behavior determined, except in the most elliptical way, by the whole of his culture. What actually influences his behavior is that selective version of his culture which he internalized as a result of having particular parents, living in one community as opposed to another, participating in specific occupations, and all the other "objective" and "subjective" forces which by selection and distortion produced his private variant of the generalized culture. "Life experience" conceptualizes the ceaseless interplay of the abstract determinants and the highly specific, idiosyncratic nature of each concrete instance. "Learning" also ties together all three categories: biological equipment, types of situations and their recurrences, and culture At any rate, theories of learning *ought* to take account of cultural forms and variations. Present "laws of learning" may be universal, but they are also somewhat formal because devoid of cultural content. Certainly it is a fact that at present learning psychologists can rarely predict human behavior outside of an experimentally controlled situation "Motivation" equally has biological, situational, and cultural dimensions

In all these, and other, secondary categories the basic determinants are confounded, as the statisticians would say, or, in other words, behavioral scientists must deal with a complex field structure. There is, at best, a vague recognition that all are involved, but in practice scientists from different disciplines and with different temperamental biases tend to operate as if motivation were, after all, simply biological or situational or cultural We lack the techniques, quantitative or otherwise, for dealing with systems of organized complexity (Weaver, 1948). And so, for the time being at least, we must do the best we can with crude, first approximations. Each of us must continue to insist that the particular variable he is most interested in be taken fully into account If there is a reasonable amount of "give" on every side, if each specialist fully accepts the fact that his discipline can explain not everything but something, the results are not too bad One may compare a game in which the high card or combination is crucial Other cards in the hand have a value but a secondary importance for that deal Some hands are dealt by science, where the winning combination is certainly held by biology, others where psychology, sociology, geography, or anthropology can do the calling (cf. Leontief, 1948). So I shall here unashamedly concentrate upon the hands where, it seems to me, anthropology can bet high upon the significance of cultural factors for understanding and explanation.

At the cultural level there are not many analogies to the determination of behavior by single gene substitutions. Perhaps the only unarguable one is language. It has certainly been demonstrated that normal newborn human organisms will learn, if motivated, the language spoken in the family where they are reared, no matter how different the biological stock of the baby may be from that of all other members of the family and no matter whether the learning takes place thousands of miles from the region where this particular language developed. Slotkin (1952, pp. 172-174) provides a dramatic example of an Australian aborigine in the 1840's who spoke the Irish variety of English with a typical accent and not a word of the language of his biological parents. Some features of etiquette (such as the forms of greeting), the wearing of particular kinds of clothes, and food habits might also be rather generally accepted as exclusively determined by culture,

but in the latter two cases environmental and indeed biological factors also play a role in at least some concrete instances In general, "culturally influenced" is a much safer phrase than "culturally determined" However, one must be equally cautious in inferring a complete absence of cultural influence. Lacking demonstration of the genetic mechanisms involved, behavioral characteristics may be taken as "innate" or genetically determined only if carefully designed and quantitatively adequate cross-cultural checking has taken place. Cultural influence may be masked by the universality of some types of cultural learning (Michael, 1953, p 225), as in the case of the Gestalt contention that closure is a general law of innate perceptual organization

Perhaps, to avoid misunderstanding, it would be well to state explicitly not only how the approach taken in this chapter ties in to the more traditional categories but also how it relates to the innovating and integrating theory of action (behavior) developed by Talcott Parsons and his associates (cf. Parsons, 1953) This theory deals with three foci of the organization of action (social system, personality, and culture) and their interrelations The three systems (social, personal, and cultural) interpenetrate but each also has independent status as a system However, since the present chapter makes no pretensions even to explore all of the conditions which influence and causes which determine human behavior, attention will be restricted to cultural elements in such conditions and causes Other elements will be mentioned only when it is appropriate to contrast them with the cultural or to discuss the interconnections of two kinds of elements. Nevertheless, the approach taken here in no sense implies that personality is a mere composite of biological and cultural factors nor that the social system is not also an important focus of the organization of action Some aspects of behavior are best treated in the context of social systems or in that of personalities as systems of action. Each of the three foci is equally legitimate, and any exhaustive treatment must consider each and their interpenetration, for no one of the three is completely reducible to any other one or two. And "action," in the Parsonian sense, constitutes an independent frame of reference level which is not reducible to the conventional categories of "heredity, environment, and culture" But for the limited purposes of this chapter, addressed primarily to an audience of psychologists, it seems proper to emphasize actors rather than systems

I shall provide a synoptic review on selected topics The emphasis will be upon cultural behavior rather than upon personality-in-culture The literature on cultural influence upon personality has been surveyed critically in a number of sources (Kluckhohn and Mowrer, 1944, Mowrer and Kluckhohn, 1944, Haring, 1949. Sargent and Smith (Eds), 1949; Lindesmith and Strauss, 1950, Hartmann, Kris, and Loewenstein, 1951, Hallowell, 1953, Kluckhohn and Murray, 1953, Mead, 1953) The history of psychiatric (and especially psychoanalytic) and anthropological collaboration in the investigation of personality has been reviewed in Kluckhohn, 1944a.

The emphasis will likewise be limited largely to anthropology in the narrower sense That is, the evidence will be drawn mainly from "primitive" or, at any rate, non-Western cultures as reported by scientists labeled "anthropologists" Special attention will be given to the research of the past decade and to that published in monographs and in the technical literature In sum, the central aim is to provide psychologists with a wide-ranging but in no sense exhaustive survey of recent data outside the ordinary range of their reading

First, I must say something about cultural theory and try to lay a few ghosts. Kroeber and Kluckhohn (1952) have stated that most social scientists now formulate the concept of culture approximately as follows

> Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts, the essential core of culture consists of traditional (i e, historically derived and selected) ideas and especially their attached values, culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action (p 181)

A few clarifying and emphasizing remarks are perhaps in order. The word "patterns" emphasizes the fact that anthropologists deal with structures as well as forms The two are not identical. To take an example from linguistic culture: the English word "glove" is a single morpheme, it has no structure but does have formal properties, such as its syntax Pattern analysis in anthropology takes account of the interrelation of parts and of their relation to the whole — as contrasted with an atomistic bursting asunder which results when a mere list of cultural traits or forms is analyzed.

The concept of culture arises from behavior and returns to behavior, but culture is not behavior — it is only one element in human be-

havior Concretely, the locus of the "hard-sense data" upon which the abstraction is based consists in observed regularities in the behavior of specific individuals and in the products of such behavior (artifacts) Such regularities are referable to, roughly, "group tradition" — at all events to something not exhausted by the specification of the immediate situation, the biological properties of the behaving individuals, and their idiosyncratic life experiences To speak precisely, "culture" is used by anthropologists in two overlapping and yet somewhat distinct senses On the one hand, "culture" denotes a logical construct, the network of abstracted patterns generalized by the anthropologist to represent the regularities distinctive of the group in question On the other hand, "culture" designates these patterns or "norms" as internalized in the individuals making up the group As Bidney (1953) says

> . culture patterns may well be considered in abstraction from actual behavior for the purpose of comparative study and analysis, this does not imply that culture is *nothing but* a logical construct of patterns or forms the unit of culture is the *patterned process* and culture comprises the patterned behavior of man in society Only by combining pattern and process as distinguishable but inseparable elements of cultural behavior will it be possible to discover and understand the "dynamic mechanisms" . (p. 155)

For complete rigor, one might need to use the device of the general semanticists and speak of Culture_1 (the logical construct in the mind of the anthropologist) and Culture_2 (the norms internalized in individuals as manifested by patterned regularities in abstracted elements of their behavior) However, for purposes of this chapter, it will only occasionally be necessary to make this distinction overt

The explicit culture consists in those regularities of word and deed which may be generalized straight from the evidence of the ear or eye The implicit culture, however, is an abstraction of the second order Here the anthropologist infers least common denominators which seem, as it were, to underlie a multiplicity of cultural content. Only in the most sophisticated and self-conscious of cultures will his attention be called directly to these by the carriers of the culture, and then only in part The distinction between explicit and implicit culture is, of course, that of polar types, not all-or-none One attempts to understand, explain, or predict by reference to a relatively few organizing principles of the system in question. The study of culture is the study of regularities After field work, the anthropologist's first task is the descriptive conceptualization of certain trends toward uniformity in aspects of the behavior of the people making up a certain group. The anthropological picture of the explicit culture is largely the totality of modes of behavior in that group. Now, however, anthropologists are trying to go further, to reduce the wide range of regularities in a culture to a relatively few "premises," "categories," and "thematic principles" of the inferred or implicit culture So far as the fundamental postulates about structure are concerned, this approach resembles what factor analysts are trying to do The methods, of course, are very different.

"*Patterns of* and *for* behavior" means that both what people do and what they say they do or should do are taken into account Culture encompasses both "designs for living" and the abstracted pattern of regularities in actual living

Culture does not "behave", only individuals behave Concretely, the influence of culture is always and everywhere mediated by specifiable individuals Portions of the culture are "internalized." As Grace de Laguna (1949) says

> It is as if the basic pattern of the culture must be reflected in the internal structure of each individual person, as if the individual were in some sense a microcosm and the culture to which he belongs a macrocosm Each individual, like a Leibnizian monad, "reflects" the culture of his world from his own point of view and with varying degrees of clearness and confusion The experienced ethnologist is now able to reconstruct a considerable part of the cultural system from any good informant, using not merely what the informant "knows," or can verbalize, but what he unwittingly reflects in his attitudes and modes of expressive response observable differences are equally important and even more significant The basic structure is rather to be found in the common ground of both their similarities and their differences, the trunk from which divergent personalities branch and by which they are all supported (pp 387-388)

Common ground there is, but variation is also ever present Roberts (1951) has introduced the interesting concept of the "acognitive shift" In this pioneer study, investigating three contiguous Navaho households made up of persons closely linked by blood and marriage, Roberts found that:

> Small group culture A had at least fifty-three features which B and C did not possess and lacked at least forty-one present in B and C Thus, A had a total of ninety-four unique features (counting both positive and negative features) B had a minimum of sixty-two positive and fourteen negative features, making a total of seventy-six

uniques C had at least thirty-four positive and thirty-one negative features or a total of sixty-five uniques in all Differences were found in all categories except six, but in some cases these were not particularly striking It is probable, however, that those areas in which few, if any, differences were noted would have yielded more differences if they had been subjected to more intensive study

This last point was reinforced by the examination of the sheep butchering sequence which was viewed as *A Single Habit Pattern* . .

The *Material Inventories* also dramatically illustrate the point at hand They contained a total of five hundred seventy-eight items (excluding quantities from consideration for the sake of simplicity) One hundred fifty-four of these were held in common by A, B, and C Another fifty-eight were held in common by A and B, fifty by B and C, and thirty-three by A and C Eighty-nine existed only in A; one hundred eighty-five in B, and one hundred and nine in C The total of both absent and unique features for A was one hundred thirty-nine, two hundred eighteen for B, and one hundred sixty-seven for C. In a sense, the inventories mirrored psychological reality, and inferences about the three small group cultures could well have been made if only the inventories had been available .

The evidence of the survey, the sheep butchering sequence, the material inventories, and the photographs, demonstrates that each small group culture can be distinguished from the others It can be concluded that, insofar as this survey of three closely similar Ramah Navaho households is concerned, the hypothesis that every small group defines an independent and unique group-ordered culture has been supported. Moreover, since these households were presumed to be more alike than others in the area, it can be asserted with some assurance that every Ramah Navaho household defines an independent and unique small group culture (pp. 76-77)

There is cultural variability not only with respect to the precise features of culture content which each individual experiences, but also in regard to the range of value orientations, variant as well as dominant, which exist in all cultures As Florence Kluckhohn (1953) says

> The varying roles each individual plays at different times and places may be, and often are, different in the value orientations they express No individual, any more than any whole society, can live always in all situations in accord with patterns which allow for expression of only a single dimension of the orientations One can also note many shifts of emphasis in the range of one orientation or another as between the different historical time periods of a social system. Indeed, whatever the type of problem or the situation one may choose for study, variations in value orientations are certain to be found . . If a knowledge of major cultural value orientations is essential to the understanding of social situations and individual personalities . it is also necessary to know the variant value orientations and their relation to the dominant ones (p. 357)

To sum up the study of culture does not in and of itself involve the investigation of behavior in all its concrete completeness. Cultural anthropology does, however, arise from the investigation of regularities, variations, and deviations in behavior. It returns to behavior and behavioral products for validation both of the logical construct (Culture$_1$) and the patterned process (Culture$_2$) Part of culture consists in norms for and modalities in behavior. Another part consists in ideologies justifying or rationalizing certain ways of behaving Finally, every culture includes broad general principles of selectivity and ordering ("highest common factors") in terms of which patterns *of* and *for* behavior are reducible to parsimonious generalizations.

Synoptic Review

The inclusion and exclusion of topics to be reviewed are dictated by a number of factors. It hardly seems necessary at this point in intellectual history to remind psychologists that food habits, etiquette (c.f., e g, Devereux, 1948b), and social and religious behaviors are culturally patterned. Psychologists are quite aware, for example, that mode of address, tone of voice, posture, joking behavior, freedom or inhibition of aggressive behavior, and the like, between, say, cross-cousins, in many societies reflect culture patterns as much or more than they represent individual personalities and transitory situations. Other topics, such as motivation, that might logically have been expected to appear in this list, it has been found more convenient to scatter among a number of sections There are, however, a few anthropological studies specifically on the subject of motivation (e.g., Bruner and Rotter, 1953). Fullness or brevity of treatment is affected by various considerations. Topics (e g., language and culture) which are currently controversial are, in general, given more extended treatment. So also are topics (e.g, sexual behavior) where there is good material scattered in sources probably not ordinarily read by psychologists. Other subjects (e g, evaluative behavior) of great intrinsic importance are dealt with briefly because these fields are only just now being opened up

by anthropological investigation Still other topics (e g, affect) are dealt with in only a few pages because the essential point is simple and sufficiently documented by a few illustrations Finally, there are some matters of extraordinary theoretical import, such as the universality of the "laws of learning," where present evidence is too fragmentary and too poorly conceptualized to justify extended summary Bateson (1949), for instance, has rather convincingly argued that the concepts of goal response and climax are not strictly applicable in Balinese culture. He finds that Balinese babies, like other human infants, "have a tendency to involve themselves in sequences of cumulative interaction," but cites data to suggest that these tendencies are extinguished by the specific nature of the learning process in Bali. He draws the general conclusion:

> . . . these tendencies are operative in the dynamics of the society only if the childhood training is not such as to prevent their expression in adult life. (p 42)

One would suspect that sexual orgasm, at least, constituted one exception in Balinese culture. In any case, however, the general question will be settled only by most carefully designed collaborative research between psychologists and anthropologists. The same may be said for public opinion mechanisms. Margaret Mead (1937) has discussed three types and a possible fourth among primitive peoples, and Firth (1949) has considered public opinion and authority in one group, but these are the only systematic discussions I have been able to find in the literature

INTERNAL BIOLOGICAL BEHAVIOR

Demonstrated changes usually involve also alteration in diet and often also a change in altitude or other situational factors. Hence it is exceedingly difficult to ascertain whether culture influences pulse rate, metabolism, and such biological processes. A fairly exhaustive search of the journals of human biology and physical anthropology and of *Biological Abstracts* and *Psychological Abstracts* failed to bring to light any studies where the cultural factor was not confounded with others. However, the well-known investigations of Benedict, Williams, Steggerda, MacFarland, and others indicate, on the whole, that pulse rate and metabolism are determined primarily by biological heredity (Benedict, 1937), temperature, altitude (MacFarland, 1937a,b), and by heat and cold (Hardy and Dubois, 1940).

In a population (Ramah Navaho) where blood pressure and other measures are markedly different from those of whites living in the same area, G. Allen in an unpublished manuscript has compared fourteen acculturated subjects with a total sample of several hundred (weighting the latter means so that age and sex distributions were the same as for the highly acculturated individuals). As far as systolic blood pressure, pulse rate, Cold Pressor reaction, and Schneider scores are concerned, the comparison shows only one difference (that on the Schneider Physical Fitness test) that is as much as twice its standard error This is in spite of the fact that the diet and other living habits that only indirectly reflect culture might be expected to bring the acculturated families more in the white direction Actually, except for the Schneider score, the differences are in the opposite direction from that which might be expected on cultural grounds

Tolerance (and perhaps threshold of pain) varies so much between cultural groups as to make it almost certain that this is culturally influenced (Zborowski, 1953, Herskovits, 1951, p 152) The establishment of well-defined rhythms of eating and evacuation represents the surrender of physiological autonomy to cultural control. That the time of first establishment of these rhythms in the young varies between cultures and changes with acculturation is too well known to require documentation. Consistency of feces is said to vary between cultures, even where the diets are similar (Mead, 1947a, p. 70) Henry (1951) suggests that appetite is culturally influenced (beyond the well-known fact that there are cultural conventions as to how much specified individuals should eat in certain circumstances):

> My wife and myself are both struck by the fact that Pilagá adults, even when apparently seriously ill, would continue to demand and consume food. This is possibly related to the enormous symbolic importance of eating and food in their lives Thus it does not seem to me that one can take for granted, as we do in this culture, that the appetite is *in general* vulnerable to attack from psychic or organic causes Rather, it would appear to me that, for the present, we ought to say that it is *so in our culture.* (p. 93)

Circumstances which will produce nausea and the details of the process vary culturally (Roberts and Solomon, 1954). In some cultures vomiting is very dreaded behavior, and the ordinary reaction to extreme disgust is defecation (Mead, 1947a, p. 60). Sight of a beautiful woman is said to stimulate salivary flow among

Fijians (Quain, 1948, p. 322) There is also some ethnographic evidence that the people of certain cultures survive in defiance of what Western scientists consider normal requirements Certain tribes appear to use no salt at all (Gillin, 1944) Tolley (1948) says average daily caloric consumption cannot fall below 2000 — it must be 2600 if the population is to attain maximal longevity, the American average is 3000 and the world average 2400 The average caloric intake of the Bemba, however, per adult man per day is said to be only 1706 (Richards, 1939).

Gillin (1944) summarizes some of the evidence on the use of internal musculature by practitioners of the Yoga cult. While this behavior is individually learned, the learning does not represent the invention of unique life experience but rather comes from a cultural or subcultural tradition. In principle, the patterned muscle twitchings interpreted by the Apache (Henry, 1949a, p 216) as predictions of future happenings and used by the Navaho in formal divination (Wyman, 1936) are comparable to Yoga muscular control.

A physiologist (Cannon, 1942) has argued that an individual's conviction that he is the victim of witchcraft attacks can cause such a disturbance of autonomic functioning as to result in death Various small irregularities in circulatory or respiratory behavior have also been attributed to cultural beliefs on magic, one may instance Gillin's (1951, p. 112) account of "jumpiness of the pulse" as connected with *espanto* (magical fright). Fatigue is another biological process which is probably culturally influenced (Mead, 1946a, p. 676; Benedict, 1946, pp. 180-181, 230, 257, 268).

Some aspects of human reproductive physiology are difficult to explain on purely biological grounds (Ford and Beach, 1951). Coon (1950) has discussed some of the cultural influences upon reproductive behavior (celibacy, ceremonial continence, cultural practices which increase or decrease female and male fertility). In the same paper he has also shown how genetic selection and gene loss are culturally influenced (cf. Kluckhohn and Griffith, 1950; Spuhler and Kluckhohn, 1953).

I have found only two anthropological papers directly addressed to the topic of psychosomatic disorders, although there is much material in the anthropological literature that is suggestive or peripherally relevant on this question. Mead (1947a) is primarily theoretical and programmatic, although she does give some case material such as the following:

> In New Guinea, when one is treating cuts and wounds, the problem is to make the wound close up, and it has become standard practice among medical assistants and dispensers to wash the wound with a disinfectant and seal it up with zinc adhesive plaster In Bali, where there is an extreme fear of any mutilation or injury to the perfection of the body, an attitude which contrasts strongly with the New Guinea natives' casualness toward wounds, this sealing up treatment cannot be used at all. It is necessary to keep even the smallest and most innocuous looking cut open for several days with continual wet dressings, to combat the tendency of a cut to heal too quickly and then fester (p. 70)

Henry (1949a) also makes a survey of comparative materials and provides a theoretical review, but ends with a brief digest of pertinent facts on one tribe, concluding:

> Study of Pilagá Indian culture reveals a number of psychically related somatic disorders, particularly in the areas of speech, hearing, and muscle function. Such study shows also that, in terms of some currently debated psychosomatic theories, the Pilagá Indians are free from certain expected disorders (p. 222)

SEXUAL BEHAVIOR

Murdock (1949) has worked out the "social law of sexual choice" and has shown how sexual behavior is influenced by culture as embodied in social structure. Ford (1945) and Ford and Beach (1951) have provided comprehensive reviews. The latter say:

> . . . no one has suggested, and we do not believe, that members of separate societies are sufficiently different genetically so that variations in their sexual codes and habits can be explained on the basis of heredity . . . the Keraki of New Guinea regard a man as "abnormal" if he abstains from homosexual relations prior to marriage. . Certain elements in the coital pattern appear to be so completely reflexive that their control by voluntary means might seem impossible. . . Data presented in Chapter II indicate that for the majority of men in our society, ejaculation and orgasm occur within two minutes or less after the beginning of intercourse. Among the Marquesans, in contrast, the habitual copulatory pattern involves reservatus, and every man learns early in life to control his ejaculatory reflexes in such a manner as to permit maintenance of an erection and continuation of coitus for as long as the woman desires. . . From early life the Siriono or the Trobriand man or woman has learned to associate sexual excitement with the experience of being scratched or bitten. Ac-

cordingly, such sensations acquire erotic value and are subjectively experienced as pleasantly stimulating. Most members of other societies in which love-making lacks such aggressive components are likely to find physical pain a deterrent to sexual arousal and satisfaction Social learning and experience powerfully affect the extent to which a man or woman adopts and enjoys a passive or an active role in the sexual relationship (pp. 264-266)

Preferred and acceptable positions in coitus vary greatly (Ford, 1945). In a sample of 193 cultures from all major areas of the world the preferred position was specified in 131 ethnographic reports, and of seven positions no one was preferred by more than 33 societies (Kluckhohn, 1948). There may be some association here with cultural conceptions of the active or passive role of women and preference for vaginal or clitoral stimulation There is striking variation on this latter point also (Ford and Beach, 1951, de Beauvoir, 1953).

Cultural variations in heterosexual techniques are too familiar to require extended comment (Ford, 1945) Male and female bestiality with a great variety of birds and animals (Devereux, 1947; Ford and Beach, 1951, Menninger, 1951), including the porcupine "by means of a special technique" (Hallowell, 1939), have been reported Male masturbation using everything from liver and ripe melons to heated mud has been revealed by informants. Women are said to have used an almost inconceivable variety of objects such as stones, the leg muscles of animals, elkhorn, penis of a caribou, feather quills, and a live mink with its jaws tied shut (Hallowell, 1939). The same applies to foreplay. In some cultures foreplay is minimized, almost nonexistent, female breasts are not always an object of erotic interest to men, mouth-breast contacts are viewed with amazement or disgust (Hallowell, 1949a).

The limits of tolerance for autoerotic behavior by age and sex groups (and probably also the actual incidence of such behavior) show a wide range. There is, however, a general tendency among "primitives" not to interfere with self-stimulation on the part of youngsters and to accept it, albeit a bit derisively (cf., e.g., Bryk, 1933), on the part of widowers, widows, or others whose heterosexual outlets are blocked. Among the Trukese the masturbation of an adult male may take place in a group without arousing comment, he merely turns his back (Gladwin and Sarason, 1953, p. 115). In Tikopia autoerotism is phrased in heterosexual terms — i.e., men around will remark "he is thinking of his sweetheart."

Stimulation of the genitalia of nursing children by the mother is frequently reported (cf, e g, Haring, 1946, p. 17). In some cultures this is said to be more common with male children. Manchu mothers are said to put the penis of the baby boy into their mouths (Shirokogoreff, 1924, quoted by La Barre, 1947a, p. 57, see also Róheim, 1932) (Dr Francis Hsu informs me that he has seen both Manchu and Chinese parents touch children's penises as a matter of play but that he had more often observed fathers sucking the child's toe or pecking its neck, navel, or leg.)

The facts of homosexuality nicely illustrate the interplay of biological and cultural factors (see Mead, 1949b, pp. 106-107, 130-131). There are only a very few societies for which the reports are completely negative. Gladwin and Sarason (1953, p 115), after careful investigation, concluded overt homosexuality was absent on Truk; Joseph and Murray (1951) found no cases among the related Carolinians of Saipan; Goldfrank (1951a) found evidence only of latent homosexuality among the Blood. Lessa and Spiegelman (1954, p. 285) report no "true homosexuality" (i e., where libidinal attachment exists) on Ulithi. Elwin (1943, p. 208) states that the Bison-horn Maria do not practice homosexuality even in prison. The fact that, in spite of the strong sanctions existing in some cultures, individuals do indulge in other than casual and adolescent homosexuality suggests that certain organisms have a biological propensity in this direction. On the other hand, cultural influence is demonstrated by the fact that in such groups as the Siwans and Keraki all males practice homosexuality as boys (passively) and as men (actively), the Marind-Anim also have institutionalized homosexuality (Wirz, 1925). Cultural influence is also indicated by the areal distribution of institutionalized homosexuality; by the differing fashions of oral, anal (Requena, 1945), and manual homosexual behavior, by the differing incidence of male and female homosexuality in matrilineal and patrilineal societies (Ford and Beach, 1951; Kluckhohn, 1948). Incidence of homosexual behavior may also be decreased not by taboos on homosexuality as such but by the cultural fact that persons of the same sex do not in *some* kinship systems use terms which define permissible sex relations (Hallowell, 1949a). Homosexual and heterosexual behavior alike are inhibited by various culturally standardized conceptions of security, including economic security. On Truk, friends of the same sex normally employ sibling terms and the associated behavior patterns to institutionalize the friend relationship, thus

equating it with that which obtains between close kinsmen Gladwin and Sarason (1953) go on to observe that

> when a conflict arises between sexual expression and security even in non-incestuous relationships, the sexual activity is reduced or eliminated rather than jeopardize more important security.
>
> The incest taboo . not only provides the socially structured setting for psychological freedom from anxiety in sex relations but is itself reinforced and buttressed by this same anxiety. If sexual expression can be inhibited by a comparatively minor increase in overall concern over personal security, it is apparent that even if the incest taboo did not interdict sexual relations with the members of one's cooperative group of relatives, such relations would in all probability remain very infrequent It is this basic psychological opposition of socio-economic and sex interests which probably accounts in large part for the complete lack of homosexual behavior we have concluded exists on Truk. (p. 282)

In some cultures, homosexuality is tolerated only when the individual has socially (in dress, occupation, etc) taken over the role of the other sex. However, transvestites are not always overt homosexuals Bestiality would appear to be less culturally influenced — more a product of situation and the sex drive. It is true, however, that some societies go to great lengths to prevent bestiality (Ford and Beach, 1951).

There are other culturally patterned "perversions," however. An example is the Navaho pattern of feeling the genitals of sleeping adults of the opposite sex — and not as a preliminary to possible intercourse (Kluckhohn, 1948; Dyk, 1951).

Impotence and frigidity certainly appear to be markedly influenced by cultural training and cultural attitudes (Ford and Beach, 1951). A case can be made for the view that impotence and frigidity are rare among peoples who are tolerant of childhood sexuality (Henry, 1949b) and who, in general, define sex as one of the good things of life and not as inherently "nasty" (Hallowell, 1949a; Leighton and Kluckhohn, 1947; Kluckhohn, 1948). However, Dr. David Schneider (personal communication) suggests to me that relatively free early sex activity, interfered with later, may still yield frigidity or impotence, and cites Zulu evidence from the nineteenth century. Thompson (1943) considers "penis envy" to be culturally determined

Murdock (1949) has provided quantitative evidence that marriage, sex behavior generally, incestuous behavior and its absence, "neither reflect 'historical accident' nor constitute a closed system" but are in large measure channeled by culture and especially by the prevailing forms of social organization Lévi-Strauss (1949), using different data and different methods, arrives at similar conclusions.

Not only does sexual behavior vary with culture, but the same acts lead to different behavioral sequences Bateson (1947, p 656) notes that stimulation of the child's genitals by the parents puts him to sleep in Italy but makes him more restive in Bali. It would be generally recognized that costume, nudity of varying parts of the body, and other culturally determined factors lead to the sexual arousal of adults in different ways in different cultures Gladwin and Sarason (1953, p. 112) note that married Trukese find real passion only in extramarital affairs. Even when sweethearts marry, their sexual life takes a more subdued tone promptly after marriage (p 114). Divorce rates are very different in different cultures and the subjective meanings of divorce vary greatly (Honigmann, 1953b)

Likewise, the place of sexual acts of various types in the total dynamics of personalities is culturally patterned. For example, Honigmann (1947) says:

> Kaska sexual behavior reveals three broad motivational trends. That is to say, sexual situations are perceived by the Kaska in one of three meanings, or a combination of two or more of these, while the response to the situation follows from the terms in which the situation is understood Specifically, the Indians perceive sexual situations as dangerous, as vehicles for assertion, or as instruments for passivity. (p. 41)

Obviously, these three modes of perceiving situations are not unique to the Kaska; they are broadly human. But the specific patterning is distinctively Kaska, as Honigmann well shows. Berndt and Berndt (1951) in their detailed study of sexual behavior in Western Arnhem Land show how sexual situations are perceived to a large extent through a screen of mythology and folklore.

In summary, the anthropological data fit nicely with the generalization by Beach (1950):

> For both sexes of our own species it appears that sexual excitability and the capacity for coital performance is [sic] less dependent upon hormonal chemistry than is the case in any other lower form. (p. 262)

Presence or absence of the latency period is apparently culturally determined (Hartmann, Kris, and Loewenstein, 1951; cf. also Devereux, 1951c). It certainly appears to be absent in some cultures (Devereux, 1951a). Contrary to social science folklore on this point, Hartmann,

Kris, and Loewenstein also quote Freud to this effect

> "The period of latency," he wrote in 1935, "is a physiological phenomenon" (i.e, a manifestation of a maturational process). "It can, however, only give rise to a complete interruption of sexual life in cultural organizations which have made the suppression of infantile sexuality part of their system. This is not the case with the majority of primitive peoples." (p. 7)

One can agree with Devereux (1951a, p. 90) when he says "It is probable that it is not the absence, but the occurrence of the latency period which stands in need of an explanation." Bateson (1947, pp. 655-657) discusses the reasons for believing that "latency is learned rather than due to a hypothetical endocrine change."

Holmberg (1950, p. 96) states that "the strongest secondary drives among the Siriono seem to be those based on the primary drive of hunger." He comments on the almost complete lack of sex magic in this tribe. Some of his generalizations are of great theoretical interest:

> While the drive of sex is seldom frustrated to any great extent, it is mobilized largely through the drive of hunger. . . The preference for fat women over lean women and for food-gathering women over skilled potters or hammock makers suggests that even sexual appetites are based primarily on the drive of hunger. This is clearly observable among the women, who prefer good hunters to all other partners . . . it seems as if Siriono society compensates its members for suffering from intense hunger frustration by allowing them great license in the realm of sex. . . Indeed, if the psychoanalysts are correct in their interpretations of behavior in our own society, the situation found among the Siriono is in many respects reversed. While the strongest secondary drives and anxieties in our own society arise from sex frustration, among the Siriono they may arise from hunger frustration, and while food often compensates for sex deprivation in our own society, among the Siriono love appears frequently to serve as a compensation for hunger. (pp. 96-97)

The Siriono picture clearly results from a combination of biological, situational, and cultural influences.

MOTOR HABITS

Any observant traveler notes large and small variations in the gestures and other motor habits of different regions. For example, in the state of Jalisco in Mexico the height of a child, object, or animal is indicated with the palm of the hand at right angles to the ground — not with the palm parallel to the ground as is customary with the same gesture in the United States. Many anthropologists have noted the astonishment of American Indians when whites would put a pinched finger in the mouth. Jane Belo (1935), Flora Bailey (1942), and Devereux (1951b), have provided rather comprehensive accounts of characteristic motor habits among the Balinese, Navaho, and Mohave respectively. Astrov (1950) has attempted to relate Navaho motor habits to language, mythology, and other aspects of Navaho culture. Birdwhistell (1952) has pointed to regional variations in motor habits within American culture. La Barre (1947a) gives a survey, rich in excellent detail, of variations in gestures and their meanings throughout the world. If further proof were required that motor habits are culturally learned, this is conclusively supplied by Efron (1941). He shows with great specificity, using large samples and full quantitative treatment, that assimilated Eastern Jews and assimilated Southern Italians in New York City differ greatly from unassimilated members of the same two populations and tend to resemble each other. He also demonstrates that some American-born Jews continue to follow traditional gestural behavior, while others from the same biological population exhibit the more generalized American habits. Finally, he makes it clear that gestures vary with cultural context in the same individual. Men speaking Yiddish or Hebrew would gesture in the traditional manner; speaking English a few minutes later their gestures were "American."

The development of motor habits is also culturally patterned. Mead and Macgregor (1951) summarize their findings as follows:

> 1. Balinese Bajoeng Gedé children seem to go through the same general stages of behavior as American New Haven children, but significant and consistent differences can be identified in one sequence on which there was adequate material, the sequence from creeping to walking. Where the American children go from frogging to creeping on all fours, then to standing and walking, with squatting coming after standing, the Balinese children, who do much less creeping (and spend most of the period when American children are moving actively about either sitting or being carried) combine frogging, creeping, and all-fours behavior simultaneously in a flexible, interchangeable state, from which they go from sitting to squatting to standing. The distinctive elements here are (a) the much greater activity of the American child, for whom creeping and all-fours behavior is a stage that is prepared for by the earlier stages of crawling, a stage that is precluded in the Bajoeng Gedé children because of the way they are handled; (b) the greater prolongation of

the frogging posture, which may be at least partly attributable to the many hours spent each day astride a human hip, and (c) the way in which the Balinese child can rise to a squat and from a squat to standing, combined with the great amount of hyperextension Seen in terms of the spiral analysis of development, the Balinese neglect the possibilities of the crawling stage and give very partial play to the creeping stage as contrasted with our pattern of cultural facilitation of crawling and creeping, but they reinforce the frogging-squatting sequence that we neglect by their methods of carrying the child on the hip and by the postures of the parents

2. A second area of contrast is found in the Balinese emphasis upon extension and outward rotation, greater eversion, and use of ulnar side of the hand, as opposed to the greater inward rotation, inversion, and use of the thumb, with good volar opposition between thumb and forefinger, of American children This is associated in Balinese culture with flexible and partial adjustment of peripheral stimuli, and dependence upon supporting forms, calendrical, spatial, and so on, to give orientation and continuity to the personality.

3. An area of contrast is found in the persistence in the Balinese children of a type of meandering tonus, characteristic of the fetal infant, with an accompanying very high degree of flexibility, and a capacity for the maintenance of positions of greater discrepancy, in which parts of the whole body or of the hand or the foot are simultaneously partly in flexion and partly in extension . . The same children are able to assume, in the space of a few moments, postures of highly integrated or tense motor attention and of complete flaccidity . . (pp. 181-182)

In general, psychologists have tended to put over-simple questions to the cross-cultural data as regards the development of motor habits. As Mead (1946a) says in criticizing Dennis' Hopi studies:

> It is to be expected that infants subjected to a type of environmental pressure of which the cradle board is one expression will differ from infants differently reared, but not on such simple items as "age of walking." Rather will they differ in manner of walking, occasions when they walk, significance of walking for the personality, type of balance disturbance to which the individual is subject, etc. It is even probable that most of these effects would remain even if the cradle board itself disappeared, as long as the whole complex of cultural behavior of which the cradle board had been a part survived. (p. 673)

PERCEPTION

In the United States since Boas' early work and in Britain for at least fifty years (under the influence of Haddon and Rivers on the Torres' Straits expedition and, later, stemming from the psychologist, F. C. Bartlett), anthropologists have been interested in the influence of culture on various forms of perception Boas was perhaps the first to point out that sounds in a foreign language are misheard, not because of differences in auditory potentiality, but because of the varying structure of different phonemic systems

> ". . the alternation of the sounds is clearly an effect of perception through the medium of a foreign system of phonetics, not that of a greater variability of pronunciation than the one that is characteristic of our own sounds." (Quoted in Herskovits, 1953, p. 82)

A few anthropologists tried to test Galton's studies of color and number symbolism ethnographically, and Lowie did some field work under the influence of Fechner's ideas on aesthetics. What people perceive and how they conceptualize their perceptions is overwhelmingly influenced by culture (Sherif, 1936). As H. M. Tomlinson says, we see things not as they are but as we are. Durkheim's treatment of Cushing's Zuni data is controversial on some points, but from other facts it is possible to support his main conclusion, i.e., that spatial categories vary with societies. Childe (1952) has shown how the Babylonian conception of space is as different from the Euclidean as the latter is from the Riemannian, and also how the thinking of the ancient Egyptians and Sumerians ignores the principles of identity, noncontradiction, and causality of the Kantian type. As Childe says:

> Human minds are not . . . mass-produced machines into which uniform experience has only to be fed for them to turn out uniform thoughts. (p. 18)

And, as Childe quotes Darwin on Newtonian physics, "the axioms are only a convenient shorthand, summarizing a wide field of information, and they are believed in merely because we believe in the theory." Wilder (1950) has discussed the significance of cultural factors in modern mathematics. Eisenstadt (1949) generalizes a good many anthropological findings:

> The social structure lends to the mere duration in time (or space) a definite orientation by providing *significant links* between the individual's different activities, and by relating them in this way to one another. That social time and space are not identical with mere "duration" in time and space is clearly shown by the fact that every social structure lays different emphasis on different aspects of (or points in) time and space. No stable social system is "determined by its

spatial environment — it chooses among its different aspects those most congruent with it, leaving others relatively obscured. . The spatial and temporal orientation of social activities, their definite ordering and continuity, are focused on the ultimate values of a given social structure Any given social situation can impose the spatial and temporal orientation inherent in it only insofar as it is related to the ultimate values and identifications of the social system (pp. 63, 67)

Hallowell (1942) has provided an excellently detailed description of perception and conceptualization of space among the Saulteaux. He concludes:

. . the level of abstraction utilized in dealing with certain spatial attributes is not a simple function of maturation or intellectual capacity on the part of individuals It is a function of the status of the cultural heritage as well For the cultural heritage of a people, among other things, limits or promotes the manner in which and the terms in which the individual deals with the spatial attributes of the world about him If a culture does not provide the terms and concepts, spatial attributes cannot even be talked about with precision Individuals are left to fend for themselves, as it were, on the level of elementary discriminatory reactions. This limits the possibilities for the mental manipulation of more refined and developed concepts that require symbolic representation in some form Without such instruments in the cultural heritage certain areas of action are excluded and the solution of many practical problems impossible (pp 76-77)

On the basis of their work in another cultural area Joseph and Murray (1951) comment to similar effect.

. . . a high degree of associative concreteness is to be expected in any people who have not at their disposal the general and abstract associations which are provided by a "higher education." We may, for instance, anticipate much concreteness in the Rorschachs of any isolated rural population. (p. 199)

This, however, is not the finding of McConnell (1954). Dollard and Miller (1950, p. 122) have also emphasized the importance of distinguishing "intelligence" from the mere utilization of the "cultural store of tested problem solutions." As they point out:

. . . thousands of modern students can solve problems, such as the prediction of the flight of a projectile, that were insoluble to the greatest of minds before the time of Galileo. (p. 122)

Orientation in space is a focal concept in Balinese culture. Jane Belo (1935) says:

There are three ways for a man to be: erect (standing or "going"); seated (sitting or squatting), and recumbent (the words for sleeping and lying down are the same). Even children never stand on their heads or turn somersaults There is felt to be something wrong about the inverted position . . . Babies are never seen to crawl — they are held or carried until old enough to stand on their two feet . . To be *paling*, they say, is "not to know where North is", in other words, he is *paling* who has lost his sense of direction, or who has lost the sense of his own position in relation to the geography of his world . . So accustomed are the Balinese to know where they are in relation to the points of the compass that all instructions of direction are given in these terms, rather than in "right and left," or such designations as "towards me," "away from the wall," etc. The Balinese says "when you come to the cross-roads, take the turn to the West"; "pull the table southward"; "he passed me going North" — not "going towards the market", even among musicians "hit the key to the East of the one you are hitting" (pp 125-127)

Reactions to the Rorschach test reveal varying modalities of perception in different cultural groups Samoans show "an overemphasis of whole responses at the expense of large detail and small detail responses," whereas Moroccans exhibit "marked preference for small detail responses" (Slotkin, 1952, pp. 176-177). Joseph and Murray (1951, p. 189) found the same contrast between two cultural groups living on the same island. Thompson (1951, pp. 261-262) reports that "a distinctive tribal perception pattern emerged for each of the three tribes under consideration" and suggests that "these three tribal perception patterns resemble closely the three levels of perception which Piaget found characterized the development of the Swiss child's conception of the world, namely, the 'blur' or syncretic level; the differentiating level; and the synthesizing level."

Hallowell (1951a, p. 170) has shown how language, art forms, belief, and other aspects of culture "are relevant to perception, how they become involved in the perceptual experience of individuals, the role they play in the total structuralization of the perceptual field, and the consequences of this fact for the actual conduct of the individual." Hallowell presents a wealth of concrete material, but one of his most interesting points is the following:

. . . entities that have *no* tangible or material existence may become perceptual objects in the actual experience of individuals . . . In the foregoing anecdote there are thirteen references to *hearing* the windigo. Auditory stimuli alone appear to have been the chief *physical* source of the subject's interpretation of the initial presence of a windigo and all his *subsequent* overt behavior

the sounds heard by Adam "meant" *windigo* to him But this was possible only because cannibal monsters were among the traditionally reified concepts and imagery of his culture Furthermore, just as a word or sentence may induce an affective response, or immediately define a situation as dangerous and thus call forth appropriate conduct, such was the case here Once the situation became perceptually structuralized in this way, subsequent sounds likewise became meaningful in terms of the same pattern . . . perception in our species enables human beings to adjust to a realm of culturally constituted objects as psychologically "real" as other orders of phenomena (pp 178-184)

The behavior of different peoples with respect to time exhibits rather consistent features The Navaho, for example, are accurate on relative sequences but hopeless on absolute dates The reverse is true for the Saint Lawrence Eskimo Evans-Pritchard (1940) has discussed "structural time" and space conceptions among the Nuer, and Fortes (1949a), Lévi-Strauss (1953), and Alexander (1945) have provided sophisticated considerations of space and time concepts. Bergler and Róheim (1946) in a consideration of the psychology of time perception, have used cultural materials Lentz (1938) has provided a learned report of the development of time reckoning in Nuristan and Pamir. Sorokin and Merton (1937) have discussed "social time." Bohannon (1953) has published a study of time concepts in an African tribe. Hallowell (1937) has compared temporal orientations in Western civilization to those of the Saulteaux. Marian Smith (1952) has dealt with time concepts as related to ego extension

This brief survey of four cultures reveals certain sharp contrasts in concepts of ego extension The Western ego may extend infinitely into the future — at any rate it is importantly involved in future events, Hindu egos extend infinitely into both past and future — with a definite understanding of the beginning in the past and the eventual end of the individual soul; Chinese egos start their extensions not from remote time but from the present, flowing into both past and future, with individuality becoming more and more tenuous, and for the Coast Salish, ego extension is hardly temporal at all but carries the individual inevitably into relation with the world about him. The extent to which cultural concepts involve time in their expressions of ego extension seems to vary considerably. (p. 400)

Whorf and Lee have supplied particularly original treatments of time concepts, especially as related to linguistic structure. Alexander (1945) gives a good summary of Whorf's earlier, descriptive treatment of the Hopi concept of time:

He shows that linguistically the Hopi have no objectification or spatialization of the time concept such as we do They have no noun (substantive) for *time*, no tense system of past-present-future but only a designation of "earlier and later," no cardinal notion of times or days in groups, but only an ordinal notion of event series related with respect to earlier and later in fact, they have no objectified temporal nouns at all, such as summer, winter, etc, but only adverbial elements to represent *when* They would speak, not of an event as an object (noun), but rather as a verb (eventing) They cannot refer spatial analogues (with a few questionable exceptions) to temporal phenomena as we so readily do (e g, a length of time, a bit of time, etc) All of this contributes not only to their key concept of time, but even to their habits and behavior, as Whorf so admirably shows, giving to all temporal impressions the basic sense of "latering" or "eventing," which creates a fundamentally subjective, internal, and teleological time-notion. For example, the emphasis placed upon *preparation* for events clearly shows this strong sense of anticipation (pp. 35-36)

In a later, posthumously published paper, Whorf (1950) goes boldly into the philosophical realm What Whorf says here is significant enough, profound enough, and innovating enough to deserve lengthy quotation, although the whole article and, even more, the supporting documentation in a number of technical studies need to be read carefully for full understanding and conviction — or rejection — of the main thesis.

I find it gratuitous to assume that a Hopi who knows only the Hopi language and the cultural ideas of his own society has the same notions, often supposed to be intuitions, of time and space that we have, and that are generally assumed to be universal In particular, he has no general notion or intuition of *time* as a smooth flowing continuum in which everything in the universe proceeds at an equal rate, out of a future, through a present, into a past, or in which, to reverse the picture, the observer is being carried in the stream of duration continuously away from a past and into a future.

After long and careful study and analysis, the Hopi language is seen to contain no words, grammatical forms, constructions or expressions that refer directly to what we call *time*, or to past, present, or future, or to enduring or lasting, or to motion as kinematic rather than dynamic (*i.e.*, as a continuous translation in space and time rather than as an exhibition of dynamic effort in a certain process) or that even refer to space in such a way as to exclude that element of extension or existence that we call *time*, and so by implication leave a residue that could be referred to as *time*. Hence, the Hopi language contains no reference to *time*, either explicit or implicit.

At the same time, the Hopi language is capable of accounting for and describing correctly, in a pragmatic or operational sense, all observable phenomena of the universe. Hence, I find it gratuitous to assume that Hopi thinking contains any such notion as the supposed intuitively felt flowing of *time,* or that the intuition of a Hopi gives him this as one of its data. Just as it is possible to have any number of geometries other than the Euclidean which give an equally perfect account of space configurations, so it is possible to have descriptions of the universe, all equally valid, that do not contain our familiar contrasts of time and space. The relativity viewpoint of modern physics is one such view, conceived in mathematical terms, and the Hopi Weltanschauung is another and quite different one, nonmathematical and linguistic.

Thus, the Hopi language and culture conceals a *metaphysics,* such as our so-called naive view of space and time does, or as the relativity theory does, yet a different metaphysics than either. In order to describe the structure of the universe according to the Hopi, it is necessary to attempt — insofar as it is possible — to make explicit this metaphysics, properly describable only in the Hopi language, by means of an approximation expressed in our own language, somewhat inadequately it is true, yet by availing ourselves of such concepts as we have worked up into relative consonance with the system underlying the Hopi view of the universe.

In this Hopi view, time disappears and space is altered, so that it is no longer the homogeneous and instantaneous timeless space of our supposed intuition or of classical Newtonian mechanics. At the same time new concepts and abstractions flow into the picture, taking up the task of describing the universe without reference to such time or space — abstractions for which our language lacks adequate terms. These abstractions, by approximations of which we attempt to reconstruct for ourselves the metaphysics of the Hopi, will undoubtedly appear to us as psychological or even mystical in character. They are ideas which we are accustomed to consider as part and parcel either of so-called animistic or vitalistic beliefs, or of those transcendental unifications of experience and intuitions of things unseen that are felt by the consciousness of the mystic, or which are given out in mystical and (or) so-called occult systems of thought. These abstractions are definitely given either explicitly in words — psychological or metaphysical terms — in the Hopi language, or, even more, are implicit in the very structure and grammar of that language, as well as being observable in Hopi culture and behavior. They are not, so far as I can consciously avoid it, projections of other systems upon the Hopi language and culture made by me in my attempt at an objective analysis. Yet, if *mystical* be perchance a term of abuse in the eyes of a modern Western scientist, it must be emphasized that these underlying abstractions and postulates of the Hopian metaphysics are from a detached viewpoint equally (or to the Hopi, more) justified pragmatically and experientially as compared to the flowing of time and static space of our own metaphysics, which are *au fond* equally mystical. The Hopi postulates equally account for all phenomena and their interrelations, and lend themselves even better to the integration of Hopi culture in all its phases.

The metaphysics underlying our own language, thinking, and modern culture (I speak not of the recent and quite different relativity metaphysics of modern science) imposes upon the universe two grand COSMIC FORMS, space and time, static, three-dimensional, infinite space, and kinetic, one-dimensional, uniformly and perpetually flowing time, two utterly separate and unconnected aspects of reality (according to this familiar way of thinking). The flowing realm of time is, in turn, the subject of a threefold division: past, present, and future.

The Hopi metaphysics also has its cosmic forms comparable to these in scale and scope. What are they? It imposed upon the universe two grand cosmic forms, which as a first approximation in terminology we may call *manifested* and *manifesting* (or, *unmanifest*) or again, OBJECTIVE and SUBJECTIVE. The objective or manifested comprises all that is or has been accessible to the senses, the historical physical universe, in fact, with no attempt to distinguish between present and past, but excluding everything that we call future. The subjective or manifesting comprises all that we call future, *but not merely this,* it includes equally and indistinguishably all that we call mental — everything that appears or exists in the mind, or as the Hopi would prefer to say, in the *heart,* not only the heart of man, but in the heart of animals, plants, and things, and behind and within all the forms and appearances of nature in the heart of nature, and by an implication and extension which has been felt by more than one anthropologist, yet would hardly ever be spoken of by a Hopi himself, so charged is the idea with religious and magical awesomeness, in the very heart of the Cosmos, itself. The subjective realm (subjective from our viewpoint, but intensely real and quivering with life, power, and potency to the Hopi) embraces not only our *future,* much of which the Hopi regards as more or less predestined in essence if not in exact form, but also all mentality, intellection, and emotion, the essence and typical form of which is the striving of purposeful desire, intelligent in character, toward manifestation — a manifestation which is much resisted and delayed, but in some form or other is inevitable. It is the realm of expectancy, of desire and purpose, of vitalizing life, of efficient causes, of thought thinking itself out from an inner realm (the Hopian *heart*) into manifestation. It is in a dynamic state, yet not a state of motion — it is not advancing towards us out of the future, but *already with us* in vital and mental form, and its

dynamism is at work in the field of eventuating or manifesting, i e., evolving without motion from the subjective by degrees to a result which is the objective In translating into English the Hopi will say that these entities in process of causation *will come* or that they — the Hopi — *will come* to them, but in their own language there are no verbs corresponding to our *come* and *go* that mean simple and abstract motion, our purely kinematic concept The words in this case translated *come* refer to the process of eventuating without calling it motion — they are *eventuates to here* (pew'i) or *eventuates from it* (angqo) or *arrived* (pitu, pl. oki) which refers only to the terminal manifestation, the actual arrival at a given point, not to any motion preceding it

This realm of the subjective or of the process of manifestation, as distinguished from the objective, the result of this universal process, includes also — on its border but still pertaining to its own realm — [the] aspect of existence that we include in our present time. It is that which is beginning to emerge into manifestation; that is, something which is beginning to be done, like going to sleep or starting to write, but is not yet in full operation. This can be and usually is referred to by the same verb form (the *expective* form in my terminology of Hopi grammar) that refers to our future, or to wishing, wanting, intending, etc. Thus, this nearer edge of the subjective cuts across and includes a part of our present time, viz the moment of inception, but most of our present belongs in the Hopi scheme to the objective realm and so is indistinguishable from our past. There is also a verb form, the *inceptive* which refers to this *edge* of emergent manifestation in the reverse way — as belonging to the objective, as the edge at which objectivity is attained, this is used to indicate beginning or starting, and in most cases there is no difference apparent in the translation from the similar use of the expective. But at certain crucial points significant and fundamental differences appear The inceptive, referring to the objective and result side and not like the expective to the subjective and causal side, implies the ending of the work of causation in the same breath that it states the beginning of manifestation. If the verb has a suffix which answers somewhat to our passive, but really means that causation impinges upon a subject to effect a certain result — i e., *the food is being eaten,* then addition of the inceptive suffix in such a way as to refer to the basic action produces a meaning of causal cessation The basic action is in the inceptive state, hence whatever causation is behind it is ceasing, the causation explicitly referred to by the causal suffix is hence such as WE would call past time, and the verb includes this and the incepting and the decausating of the final state (a state of partial or total eatenness) in one statement. The translation is *it stops getting eaten.* Without knowing the underlying Hopian metaphysics it would be impossible to understand how the same suffix may denote starting or stopping .

It may now be seen how the Hopi do not need to use terms that refer to space or time as such. Such terms in our language are recast into expressions of extension, operation, and cyclic process provided they refer to the solid objective realm. They are recast into expressions of subjectivity if they refer to the subjective realm — the future, the psychic-mental, the mythical period, and the invisibly distant and conjectural generally Thus, the Hopi language gets along perfectly without tenses for its verbs. (pp. 67-70, 72)

Dorothy Lee (1950a), using mainly Trobriand data, questions the universality of the concept of time (and of other concepts) having inevitably lineal dimensions.

Are we then right in accepting without question the presence of a line in reality? Are we in a position to say with assurance that the Trobrianders are wrong and we are right? Much of our present-day thinking, and much of our evaluation, are based on the premise of the line and of the line as good. Students have been refused admittance to college because the autobiographic sketch accompanying their application showed absence of the line, they lacked purposefulness and ability to plan, they were inadequate as to character as well as intellectually Our conception of personality formation, our stress on the significance of success and failure and of frustration in general, is based on the axiomatically postulated line How can there be blocking without presupposed lineal motion or effort? If I walk along a path because I like the country, or if it is not important to get to a particular point at a particular time, then the insuperable puddle from the morning's shower is not frustrating, I throw stones into it and watch the ripples, and then choose another path If the undertaking is of value in itself, a point good in itself, and not because it leads to something, then failure has no symbolic meaning, it merely results in no cake for supper, or less money in the family budget, it is not personally destructive. But failure is devastating in our culture, because it is not failure of the undertaking alone, it is the moving, becoming, lineally conceived self which has failed.

Ethnographers have occasionally remarked that the people whom they studied showed no annoyance when interrupted. Is this an indication of mild temper, or might it be the case that they were not interrupted at all, as there was no expectation of lineal continuity? Such questions are new in anthropology and most ethnographers therefore never thought of recording material which would answer them. However, we do have enough material to make us question the line as basic to all experience; whether it is actually

present in experienced reality We cannot even take it for granted as existing among those members of our society who are not completely or naively steeped in their culture, such as many of our artists, for example And we should be very careful, in studying other cultures, to avoid the unexamined assumption that their actions are based on the prediction of a lineal reality (pp 96-97)

The extent to which perceptions of color are culturally determined has been considered by anthropologists for many years, going back, perhaps, to Boas' first field work in 1883 (Herskovits, 1953, p. 9) Boas later used Woodworth's test of differences in perception of form and color (ibid., p 70) Ray (1952) summarizes the results of his recent cross-cultural studies of color perception as follows

. the color patterning of man's visual world is not based upon psychological, physiological, or anatomical factors There is no such thing as a "natural" division of the spectrum. Each culture has taken the spectral continuum and has divided it into units on a quite arbitrary basis. The names applied to these units sometimes refer to the middle color or type of the band in question, in other cases, colors are defined wholly in terms of boundaries without the type concept playing any role No color system derives from physiological limitations; no color system exploits fully the physiological sensitivity of the human being.

There is no such thing as a blue-green confusion. Indeed, most of the reported cases of blue-green confusion are in reality the result of a great subtlety of classification. The spectral segment containing our twofold division, blue and green, is in some cultures divided into three or four divisions The middle division contains what we call the blue-green area, it constitutes a unit color as contrasted to the segments of higher or lower wavelength on either side. (pp. 258-259)

Recent work (Stiles, 1946, Wald, 1949) suggests that genetically determined differences in macular pigmentation may cause certain peoples to have diminished discrimination in the blue-green area. Specialists in this immensely technical area may have other grounds to quarrel with Ray; however, the central point that perception of color is determined in part by culturally arbitrary standards and especially by linguistic categories (see Lévi-Strauss, *et al.*, 1953, p. 49) seems unarguable. The absence of blue in the art of certain areas is not due to inability to distinguish the color but simply to the unavailability or scarcity of the pigment (Firth, 1951, p. 138).

Culturally determined perception of color is mediated, of course, through language. H. H. Bartlett's (1928) study of color nomenclature among Bataks and Malays makes one wonder if these problems have not been needlessly complicated by insufficient knowledge on the part of investigators of the alien language Speakers of English will in some circumstances group many shades under "red," but a foreign investigator whose English vocabulary was extensive could elicit much finer discriminations from those of his subjects whose experiences had sensitized them to these varieties. If the investigator were not aware of the very existence of these terms in the English lexicon, he might be content to stop with the single abstract category "red." An elaborately differentiated color vocabulary for, say, reindeer or horses is not necessarily applied to other entities in the people's environment (Ray, 1952).

The work of F. C Bartlett (1932, 1937), Thouless (1933), and Nadel (1937a, 1937b) is well known as having conclusively demonstrated the importance of cultural factors in remembering and forgetting. Michael (1953) has just reported on a cross-cultural investigation of the effect of differences in cultural conditioning on the perception of closure.

The results, for all conditions, gave *p*'s which indicated no significant differences in the perception of closure between the two cultures. A number of factors involving culture differences which may have contributed to the results are discussed. The point is emphasized that considerable cross-cultural research will be necessary in order to eliminate the indeterminateness of these factors. (p. 230)

McElroy (1952), in a comparative experimental study of aesthetic expression among the aborigines of Arnhem Land (Australia), concludes that "the Beauty of a visual object is almost entirely determined by the cultural conditioning of perception" Bovard (1953) has recently presented impressive evidence on the influence which the norms of stable and integrated groups have on perception.

Dorothy Lee, in a personal communication, suggests that perception leads into cognition, particularly as regards the habitual ways in which *percepta* are related. For example, people who have a field basis of perception do not, in fact, treat "subject and predicate" or "genitive" and "possessive" relationships as our ethnocentric categorizations suggest. Where the inclusion of a "subject" in an utterance is not necessary and not frequent, the situation is not a case of focusing on a subject and predicating something of it, but rather of making a holistic statement and, according to choice, qualifying or delimiting it by applying a "subject." We tend to force the linguistic patterns of quite

different language structures into a mechanistic conception of relatedness

There are probably no fields where the combination of psychological and anthropological knowledge is more urgent at the moment than those of perception and cognition. Spiro (1952) has cogently argued that the acquisition of certain beliefs cannot be explained either by cultural determinism or by any existent theories of learning, the acquisition can be understood only if we can elucidate the relevant principles of perception and cognition. Barnett (1953), in his important book, shows how the basic processes of innovation are conditioned by cultural factors in perception He argues, in effect, that the Gestalt psychologists have overemphasized the universal, biologically given determinants.

> The question of when past experience does bear upon perception and what its effects are leads us to the heart of the problem of innovation It appears that previous experience structures subsequent perception more often than the principal protagonists of gestalt theory have been willing to allow. It also appears that the ordering of a previous sensory report in terms of some past experience can be more creative than is generally recognized. The mental interaction between what is and what was, in fact, does provide the only basis for a recombination of natural events, that is, for innovation, the uniquely mental contribution of newness. (p. 448)

COGNITION

"Custom for most men is a substitute for thought" (Hodgen, 1952, p. 73). That habitual thought patterns vary between some cultures, at least, would be generally admitted Nadel (1937a, 1937b) carried out picture and story experiments with two African tribes and attempts to relate his findings to other distinctive features of the two cultures:

> . . . we find a group [Yoruba] characterized by highly developed image-art, by the possession of drama, and of a complex, rationalized religious system, which in the field of psychological response, shows a marked tendency to emphasize logical coherence, to concentrate on "crucial" facts, and to produce "meaning-oriented" interpretation and description. On the other hand, a group [Nupe] whose culture possesses no image-art and drama, whose beliefs revolve around abstract impersonal magical principles, is found to be, psychologically, a type more detached and enumerative in description and memory, and given to the appreciation of circumstantial details and of spatial or symmetrical arrangements rather than to the elaboration of a unitary, coherent meaning. (1937a, p. 431)

Cultural effects upon cognition include the customary classificatory schemes Thompson (1945) gives one instance of a superclassification different from our own

> The Hopi classify all phenomena relevant to their life way according to principles which are similar to, but not as refined as, those upon which Western science is based — that is, they recognize various classes or species of animals, plants, men, etc. But they also have a system of cross-classification, not recognized by Western science, which cuts across the empirically established, mutually exclusive orders, and closely relates phenomena from the different classes or species into higher orders which function as independent wholes in the cosmic scheme Such a higher order, for example, may include a group of men related by kinship (namely, a clan), a species of animals, of birds, of plants, of supernatural beings, of elements, etc. It may also have other attributes, such as direction, color, sex, etc These century-long established, cross-classified higher orders may be thought of as forming a sort of super-society which functions as a universal nature-man cooperative. They form the backbone of the system of interdependent relationships which give basic structure to the universe. (p 541)

However, it should be noted that F Eggan (1950, p. 87) accepts this picture only with significant reservations. While forms of cognition and cognitive emphases are culturally influenced, intelligence is not — except insofar as "intelligence" is estimated by tests which are culturally loaded. Most psychologists recognize the factor of cultural loading today; some (for example, Nissen, Machover, and Kinder, 1935) recognized it two decades or more ago. In view of the sophistication of psychologists upon this point as of 1953, it will be sufficient to document this assertion by one recent piece of evidence. Eells, Davis, Havighurst, *et al.* (1951) report:

> The differences between the test performance of Old Americans and ethnics when status is held constant . are small and statistically insignificant. This is true for comparisons in terms of I Q.'s and also for comparisons upon analysis of individual items. (p. 61)

Anthropologists have long been interested in the influence of language upon perception and thought The Trukese conceive of fresh water and sea water as entirely different substances (Gladwin and Sarason, 1953). The Trobrianders use entirely different nouns for ripe and unripe yams, showing none of our tendency to distinguish qualities as separable from substantives (Lee, 1940). Whether we say that English has one word for thirty concepts (e.g., Eskimo

"snow") or that English has one word whereas Eskimo has thirty is arguable. In any case, the point is not that some cultures make finer discriminations than others in all areas of experience but rather that different cultures emphasize different areas. English, for example, is very discriminating about flocking behavior· we speak of schools of fish, herds of cattle, flocks of sheep, coveys of quail, prides of lions, etc. The same kind of thing applies, of course, to perception Some American youngsters can distinguish makes of automobiles at considerable distances just from observing the headlights — but not many of them respond to equally small cues in perceiving varieties of sailing boats or camels.

Other anthropologists (e g, Oliver, 1949) have explored with great precision the behavioral correlates of words referring to social relations Goodenough (1951, p. 64) has distinguished verbalized concepts by contrasting the related act sequences in a manner analogous to that in which linguists determine whether distinguishable sounds are allophones or phonemes. Such studies have documented the older hypothesis that the *vocabularies* of different languages both reflect and perpetuate habitual and distinctive ways of categorizing experience or modes of thought.

More than a century ago, Karl Wilhelm von Humboldt suggested that linguistic morphology influenced a people's view of the world and their thinking generally (Basilius, 1952, cf also Werkmeister, 1939). This approach was developed by certain European, and especially German, linguists and by philosophers, notably Cassirer. Bible translators commented upon their difficulties with languages that lacked a true passive or required verb endings with implicit indications of the relative status of the speakers. However, these ideas were modified and reformulated in the dress of modern linguistics and anthropology by Sapir (1929) and Thomas (1937). This viewpoint assumes that any culture is, among other things, a *way* of thinking, feeling, believing, reacting — a selective way which is then, mainly unconsciously, identified with "reality." How people behave toward one another is, in part, a function of what they call each other and of *how* they conceive objects, themselves (D. Lee, 1950b), other people, and types of events which enter into their relations. These conceptions are not only mediated but also influenced by language and more, or at least more subtly, by linguistic morphology than by vocabulary. Boas long ago noted:

> . . . the linguistic classifications never rise into consciousness, while in other ethnological phenomena, although the same unconscious origins prevail, these often rise into consciousness, and thus give rise to secondary reasoning and to reinterpretations (Quoted in Herskovits, 1953, p 84)

Boas showed how, for example, the form of some American Indian languages inevitably leads to emphasis upon causality in utterances, whereas the morphology of other languages favors purpose or teleology. At the same time Boas was always clear as to the two-way relationship between a language and the rest of a culture.

Many of Boas' ideas were developed and refined by Edward Sapir, who said· "To pass from one language to another is psychologically parallel to passing from one geometrical system of reference to another" And Sapir gave the early, now classic, statement of the whole problem

> Language is a guide to "social reality" Though language is not ordinarily thought of as of essential interest to the students of social science, it powerfully conditions all our thinking about social problems and processes Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection The fact of the matter is that the "real world" is to a large extent unconsciously built up on the language habits of the group. No two languages are ever sufficiently similar to be considered as representing the same social reality. The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached. (1929, p. 162)

More recently, there have been a number of brief empirical studies attempting to relate linguistic structure to other aspects of culture and to behavior (Alexander, 1936; Lee, 1938, Sommerfelt, 1938; Lee, 1940, Whorf, 1940a,b,c, 1941a,b, 1942; Lee, 1944a,b; Kluckhohn and Leighton, 1946, Reichard, 1950, Whorf, 1950, Hoijer, 1951, Lee, 1950a). Hoijer (1953) has just published a critical review with modest conclusions:

> The fact of the matter, then, is not that linguistic patterns inescapably limit sensory perceptions and thought, but simply that, together with other cultural patterns, they direct perception and thinking into certain habitual channels. (p. 560)
>
> . . . there is much in the thesis we have outlined that requires testing, the work . . . serves

> only to rough out a hypothesis on the relation of language to culture, not conclusively to demonstrate it (p 571)

Lenneberg (1953) has written a severe criticism of the Whorf-Lee approach and has proposed methods for experimental testing

Validation is surely required, though this must take place as much through intensive comparison of the linguistic and nonlinguistic aspects of whole cultures as through experiments in the psychologist's sense. Most linguists and anthropologists (and the former even more than the latter) view the Whorf-Lee theses with considerable reserve today (cf. Lévi-Strauss, *et al*, 1953). It is true that these theses, and particularly some of Whorf's, verge upon a metaphysic. But it is a metaphysic that suggests a good many testable hypotheses. And there is at least scattered evidence that individuals who learned one language as a child, later learned a second language of markedly different pattern which they used from later childhood or adolescence through adult life, "forgetting" the first language, show characteristic "distortions" of perception and cognition which seem attributable to the forms of the first language (Mead, 1947b, p. 639).

The research referred to above deals with "primitive" languages. Granet (1934) and Chang Tung-Sun (1939) have compared Chinese structure and modes of thought with those of Indo-European languages The latter, for example, says:

> Take aristotelian logic, for example, which is evidently based on Greek grammar. The differences between Latin, French, English, and German grammatical form do not result in any difference between aristotelian logic and their respective rules of reasoning, because they belong to the same Indo-European linguistic family Should this logic be applied to Chinese thought, it will prove inappropriate. This fact shows that aristotelian logic is based on the structure of the Western system of language Therefore, we should not follow Western logicians in taking for granted that their logic is the universal rule of human reasoning.
>
> Insofar as the object of logic lies in the rules of reasoning implied in language, the expression of reasoning must be implicitly influenced by language-structure, and different languages will have more or less different forms of logic The traditional type of subject-predicate proposition is absent in Chinese logic. According to the usage of Western logic, in such a sentence as "A relates to B" the form is not a subject-predicate proposition but a relational proposition. Another sentence like "A is related to B" is in the form in question because there is the distinction between the subject and predicate. For both forms, however, there is in literary Chinese only one . . . (pp 209-210)
>
> From this it is seen that Chinese thought is not based upon the law of identity, but takes as its starting point relative orientation or rather the relation of opposites This type of thought evidently constitutes a different system This system is probably related to the nature of Chinese characters Being ideographic . . Chinese characters put emphasis on the signs or symbols of objects The Chinese are merely interested in the interrelations between the different signs, without being bothered by the substance underlying them Hence the relational or correlational consideration. (p. 215)
>
> These two types of thought differ not only in their categories and their basic rules of logic but also in their attitudes In putting a question about anything, it is characteristic of Western mentality to ask "What is it?" and then later "How should one react to it?" The Chinese mentality does not emphasize the "what" but rather the "how" Western thought is characterized by the "what-priority attitude," Chinese by the "how-priority attitude" In other words, Western people use the "what" to embody and absorb the "how" The "how" is to be determined by the "what" The Chinese on the other hand use the "how" to imply the "what." The "what" type of thought may develop through religion to science. This is one of the characteristics of scientific thought. The type of thought characterized by emphasis on the "how" can develop only in the socio-political sphere, especially in connection with the problem of ethics Neglect of the "what" accounts for the neglect or absence of epistemology in China.
>
> That Chinese thought always centers on human affairs while neglecting nature may thus be accounted for (p 220)

Hsu (1953, pp 370-375) presents an alternative (nonlinguistic) hypothesis as to why China did not develop science or go through a nineteenth-century industrial revolution.

The 1952 Conference of Anthropologists and Linguists considered very carefully the relations between language, perception, and cognition. There appears to have been general agreement that such important relations exist but that they are multidirectional rather than unidirectional and that great caution must be exercised not to draw sweeping conclusions prematurely. It was pointed out that while meanings often reflect culture in general, they may reflect not the contemporary culture but a much older one. There are certainly cases where languages and cultures vary independently. Even where fairly close interdependences exist, technical science and technical philosophy (cf. Feuer, 1953) may be affected but little. On the other hand, there was agreement that language is one of the

screens through which experience affects the individual and thus affects his perception, although experience (perhaps especially the preverbal experiences of the child) also influences the way languages categorize. Formal categories in language, where obligatory, reinforce elements in everyday experience. The choices which a speaker must make because of the compulsory grammatical categories of his language are of great psychological significance. There are categories which make certain classifications possible in some languages and not in others The interpretations of Whorf, Lee, and others deserve further logical examination and empirical testing (Lévi-Strauss, *et al*, 1953, esp. pp. 6, 8, 23-27, 32, 49-50, 60-67). These hypotheses are justified but not yet verified.

Masson-Oursel (1912, 1916), in two neglected articles, has also compared habitual modes of thinking in Greek, Indian, and Chinese cultures.

AFFECT

There may well be a sense in which emotions, as biological events, are the same the world over, although the techniques and the empirical facts for answering this question definitely are not yet at hand Ruth Benedict, in *Patterns of Culture,* presented a classic, though not always convincing, discussion Gladwin and Sarason (1953) consider the generally shallow affective relationships between Trukese, and there are other suggestive expositions in anthropological literature. However, the material on culturally determined motor habits which are used to express affect is much more satisfactory. Devereux (1949) has, for example, discussed Mohave voice and speech mannerisms.

Certainly, the expression of emotions and the circumstances arousing particular emotions vary culturally La Barre (1947a) provides vivid examples:

> Hissing in Japan is a polite deference to social superiors; the Basuto applaud by hissing, but in England hissing is rude and public disapprobation of an actor or a speaker Spitting in very many parts of the world is a sign of utmost contempt, and yet among the Masai of Africa it is a sign of affection and benediction, while the spitting of an American Indian medicine man upon a patient is one of the kindly offices of the curer. Urination upon another . . . is a grave insult among Occidentals, but it is part of the transfer of power from an African medicine man in initiations and curing rituals. As for other opposite meanings, Western man stands up in the presence of a superior; the Fijians and the Tongans sit down. In some contexts we put on more clothes as a sign of respect, the Friendly Islanders take them off The Toda of South India raise the open right hand to the face, with the thumb on the bridge of the nose, to express respect, a gesture almost identical among Europeans is an obscene expression of extreme disrespect. Placing to the tip of the nose the projecting knuckle of the right forefinger bent at the second joint was among the Maori of New Zealand a sign of friendship and often of protection, but in eighteenth-century England the placing of the same forefinger to the right side of the nose expressed dubiousness about the intelligence and sanity of the speaker — much as does the twentieth-century clockwise motion of the forefinger above the right hemisphere of the head The sticking out of the tongue among Europeans (often at the same time "making a face") is an insulting, almost obscene act of provocative challenge and mocking contempt for the adversary, so undignified as to be used only by children, so long as Maya writing remains undeciphered we do not know the meaning of the exposure of the tongue in some religious sculptures of the gods, but we can be sure it scarcely has the same significance as with us In Bengali statues of the dread black mother goddess Kali, the tongue is protruded to signify great raging anger and shock, but the Chinese of the Sung dynasty protruded the tongue playfully to pretend to mock terror, as if to "make fun of" the ridiculous and unfeared anger of another person Modern Chinese, in South China at least, protrude the tongue for a moment and then retract it, to express embarrassment at a *faux pas*
>
> Kissing, as is well known, is in the Orient an act of private love-play and arouses only disgust when indulged in publicly in Japan it is necessary to censor out the major portion of love scenes in American-made movies for this reason Correspondingly, some of the old *kagura* dances of the Japanese strike Occidentals as revoltingly overt obscenities, yet it is doubtful if they arouse this response in Japanese onlookers. Manchu kissing is purely a private sexual act, and though husband and wife or lovers might kiss each other, they would do it stealthily since it is shameful to do in public; . . . Tapuya men in South America kiss as a sign of peace, but men do not kiss women because the latter wear labrets or lip plugs Nose-rubbing is Eskimo and Polynesian, and the Djuka Negroes of Surinam show pleasure at a particularly interesting or amusing dance step by embracing the dancer and touching cheek to cheek, now on one side, now on the other — which is the identical attenuation of the "social kiss" between American women who do not wish to spoil each other's makeup
>
> In the language of gesture all over the world there are varying mixtures of the physiologically conditioned response and the purely cultural one, and it is frequently difficult to analyze out and segregate the two. The Chukchee of Siberia, for example, have a phenomenal quickness to anger,

which they express by showing the teeth and growling like an animal — yet man's snout has long ceased being functionally useful in offensive or defensive biting as it has phylogenetically and continuously retreated from effective prognathism But this behavior reappears again and again the Malayan pagans, for example, raise the lip over the canine tooth when sneering and jeering Is this instinctual reflex or mere motor habit? The Tasmanians stamped rapidly on the ground to express surprise or pleasure; Occidentals beat the palms of the hands together for the same purpose ordinarily, but in some rowdier contexts this is accompanied by whistling and a similar stamping of the feet. Europeans "snort" with contempt, and the non-Mohammedan primitives of interior Malaya express disgust with a sudden expiration of the breath In this particular instance, it is difficult to rid oneself of the notion that this is a consciously controlled act, to be sure, but nevertheless at least a "symbolic sneeze" based upon a purely physiological reflex which does rid the nostrils of irritating matter The favorite gesture of contempt of the Menomini Indians of Wisconsin — raising the clenched fist palm down up to the level of the mouth, then bringing it swiftly downwards, throwing forth the thumb and first two fingers — would seem to be based on the same "instinctual" notion of rejection

Hill (1943) has given us one of the few systematic analyses of humor in a nonliterate culture He concludes:

> . . a fundamental unity exists in Navaho and European humor. This, however, does not lead to an identity of expression (p 27)

Honigmann (1944) has discussed sexual and genital humor. Opler (1938) has published a paper on American Indian humor. Edmonson (1952) has surveyed much of the anthropological and psychological literature on humor and has compared and contrasted humor and its expression in five cultures in the same ecological area. The evidence supports his hypothesis that humor tends to be inhibited in the context of the central values of each culture.

PHANTASY AND UNCONSCIOUS PROCESSES

Lantis (1953) and Spencer (1954) have just published impressive analyses of the connections between myths and psychological processes more typical in some cultures than in others. That folklore and myth are culturally stylized needs more than mention. The areal distributions, cutting across biological stocks and environmental divisions, show that many themes and plots are culturally learned rather than being simply the products of genes or special situations. Recent studies suggesting this are reported by Goldfrank (1951b) and Campbell (1951).

The same may be said in a general way for the plastic and graphic arts. Gillin (1945) properly says of the drawings studied by Anastasi and Foley

> Children of some of the Northwest coast tribes . have apparently so internalized the bizarre and dismembered designs of animals current in their own group that they have great difficulty in seeing, to say nothing of drawing, familiar animals naturalistically Both perception and performance tend to remain within the cultural form (p. 17)

Hellersberg (1945) contrasts drawings and interpretations by Pueblo Indians and white Americans, Bender (in Joseph and Murray, 1951, chapter 6) contrasts those of Chamorros and Carolinians Wallace (1950) has made an interesting attempt to diagnose the psychological characteristics of the ancient Maya Indians by studying their art and to validate his findings by Rorschach and other materials on the post-Conquest Maya. Finally, it should be noted that it is now clear that the only cases in which the art forms produced by "savage" adults and by "civilized" children can properly be considered alike are "those in which primitive societies have failed to pattern some aspect of behavior which we have patterned extensively" (Mead, 1946a, p. 667; see also Hallowell, 1939).

That the content, form, and interpretation of dreams are to some extent culturally stereotyped is well known (Lincoln, 1935; Spencer, 1937; S. Lee, 1950; D. Eggan, 1952). In a culture (Mohave) where dreams are signally important in affecting behavior, Wallace (1947) has reviewed both cultural patterning and behavioral effects. Stewart (1951) has written on dream theory in Malaya. That there are also some cross-cultural convergencies, as claimed by the psychoanalysts, would also be admitted by many anthropologists (Kluckhohn and Morgan, 1951, D. Eggan, 1952).

Phantasies characteristic of a culture, particularly those of a sort that seem bizarre or "abnormal" to Westerners, can usually be understood only in terms of a complex of factors: the cultural process of diffusion, other historical events, contemporary situational pressures, and the cultural patterns for child training. Sometimes the latter, for example, appear to have genuine importance (Kluckhohn, 1944b). In other cases primacy seems to go to situation:

> Witch-fear, then, was neither an aboriginal nor a "normal" phenomenon in Aivilik society. Fundamentally, it was a socially disintegrating

> philosophy based on a belief in the potential malevolence of other people and reflecting great insecurity in interpersonal relations This insecurity appeared to derive not from traumatic situations of early childhood, retained throughout life, but from contemporary situations that frustrated the Aiviliks' feeling of safety in their environment. (Carpenter, 1953, p 194)

There is by now a considerable literature on responses to the administration of projective tests, especially the Rorschach, in many non-Western cultures (cf. Henry and Spiro, 1953). The data are extremely rich and interesting but exceedingly difficult to interpret with conviction In the first place, the methodology and theory of the Rorschach test are still highly controversial even within our own culture. To illustrate with only one point: Cronbach (1949) has severely criticized the quantitative and statistical manipulations commonly used Application in non-Western cultures raises a host of technical problems: administration through an interpreter or by a tester less than fluent in the native language, the lack of a culturally meaningful role for the tester — no genuine equivalent for "physician" or "professional person"; variations in response due primarily to the subjects' familiarity with and acceptance of the tester as a person. One small study (Kluckhohn and Rosenzweig, 1949) suggests that some of these problems may not be as serious as seemed likely on *a priori* grounds, but this finding requires confirmation or rejection with large samples in many cultures

Aberle's (1950) results are indeed less encouraging. Two Rorschach raters independently rated the same series of thirty-two Eskimo Rorschachs with respect to the same set of personality traits The correspondences ranged all the way from a correlation of .72 on introversion-extraversion to minus .02 on guilt. The ratings by the psychiatrist and clinical psychologist agreed even less with those of the anthropologist (see Lantis, 1953) who had collected the data than they agreed with each other, although all three had reasonably good agreement on energy, intelligence, and over-all adjustment However, as Aberle points out, there are methodological difficulties in the investigation as carried out which should prevent us from regarding these lacks of agreement as necessarily devastating. The great need is for more, very carefully designed, studies of this sort.

More serious perhaps than the technical issues are the theoretical ones arising from the sheer fact of cultural difference. Any attempt to interpret variations in the responses to the Rorschach cards as due to cultural influence runs a grave risk of begging questions that are themselves at issue. There is, first of all, the absence of norms for any non-Western culture Joseph and Murray (1951, p. 143) say, " . . although the norms for different cultures may vary, most of the psychological equivalents of the test underlying its interpretation are universally applicable." A case can be made for this view on theoretical grounds — and perhaps on empirical grounds, although the writer is unfamiliar with any serious attempt at the latter. On the other hand, Joseph and Murray later note that the Saipanese children "showed remarkable similarities with 'institution children' in our society described by Goldfarb and Klopfer" (p. 193). In terms of the data presented by Joseph and Murray on the responses of the same children to other tests and their general adjustment as described observationally and clinically, this comparson is difficult to take seriously. Other workers (cf. Abel, 1948, pp. 84, 88) have noted, for example, that responses which indicate "maturity" in other cultures may be those indicating "immaturity" in our own Abel (1948) gives other illustrations of the difficulties of interpretations outside Western culture.

> Cook in his study of Samoan boys suggests that the anatomy responses of the boys were not signs of anxiety, since cutting up of animals, especially pigs, was a daily enjoyable occurrence . The anatomy answers in themselves may not indicate anxiety, for during the early training of the Chinese, the body and its functions are not treated as taboo or as an important focus of repression as they are among Euro-Americans . . Oberholzer concludes that the records of the Alorese are normal under their own conditions and that the one individual who had a Rorschach record more like normal Europeans was maladjusted in his community. (pp. 88-90)

In spite of all the difficulties and the many cautions that must be kept constantly in mind, it seems necessary to say something about the corpus of material on the Rorschach. On the evidence and on theoretical grounds it seems a safe assumption that the wide variations in "popular" responses are partially attributable to cultural influence. Only partially, because the animals, for example, that often figure as popular responses, come in the first instance from the environmental situation, although often given specific cultural definition. Productivity may be plausibly interpreted as culturally influenced, for it seems to rise fairly regularly with acculturation to Western culture (Lewis, 1951, p. 310). Perhaps the fact that men are

generally more productive than women in the non-Western societies tested may also be interpreted in this way, for men almost invariably are more acculturated However, there is always the possibility that this difference has a biological basis.

There are certainly differences between cultural groups in imaginative behavior as expressed in reaction to Rorschach cards. Lewis, for example, comments that the Saulteaux appear to be "more imaginative than the people of Tepoztlan, living more freely in their phantasy world" (p. 311) Yet there is no proof that this difference is not determined biologically or by contrasts in the noncultural environment A tenuous case for primacy of the cultural factor rests in the fact that in "quality of response" Lewis (p. 311) finds his Tepoztecan Indians closer to Gillin's Ladinos than to Gillin's Indians. Possibly the real difference rests in the kind and content of imagination

Hallowell (1945), Abel (1948), and Henry and Spiro (1953) have compared the Rorschach results from a considerable number of cultures. The contrasts are distinctive, but, in terms of differences in the size and character of the samples and in problems of scoring and interpretation by different investigators, one cannot regard this as conclusive evidence of cultural determination of differences in phantasy life. More satisfactory are the studies of variations between China-born and American-born Chinese (Abel and Hsu, 1949), and more and less acculturated Saulteaux Indians (Hallowell, 1951b). Similarly, Kaplan (1954) found that the differences between Zuni and Navaho veterans and nonveterans reached the .05 level of significance with respect to R, CF, and T/R. For three other variables compared (W%, R%, and F%) there were no consistent differences between veterans and nonveterans.

An attempt was made (Kaplan, 1954) to test the hypothesis that Rorschach responses are culturally determined by employing the method of blind sorting on the part of Rorschach analysts who had not participated in the field work and did not know the cultures in question The results with a first analyst were largely negative, with a second largely positive Kaplan's general conclusion is:

> Real differences not only exist between the cultures, but the differences are large enough so that the Rorschachs of one culture may often be distinguished from the Rorschachs of the other cultures.

This finding is also borne out by Kaplan's statistical comparison of the within- and between-group variance in the four Southwestern cultures from which he secured records.

Wallace (1952a) also got clear-cut differentiations between sizeable samples of two Indian groups:

> the writer compared the proportions of the Tuscarora and Ojibwa samples, respectively, meeting the requirements of the Tuscarora modal class. Twenty-six cases (37 2 percent) of the Tuscarora sample met the criteria Testing the significance of the difference in percentages by the large-sample critical ratio method, it appears that the difference is highly significant, in fact, if the Tuscarora and Ojibwa were psychologically the same people, a difference as large as this would appear by chance less than once in a million future samples (p. 104)

Conclusions reached by ethnographers and by psychiatrists or psychologists working only with Rorschach data have sometimes been astonishingly similar (Du Bois, 1944, Gladwin and Sarason, 1953, pp 238-246).

Cross-cultural studies with the Thematic Apperception Test give findings in the same general direction Lessa and Spiegelman (1954, p. 300) report that essentially similar conclusions were reached by independent work with ethnographic and TAT materials. Caudill (1952) compared Japanese-born and American-born Japanese. W. Henry (1947) reports fairly pervasive contrasts between Hopi and Navaho TAT's. McArthur (1952) has demonstrated TAT differences between two subcultural groups of Americans. Buhler (1952) reports on a very interesting nonverbal projective test administered to children in five "modern" nations. This test enables one nicely to compare and contrast the effect of different cultures and similar family constellations.

"ABNORMAL" BEHAVIOR

Henry (1948) has surveyed much of the literature on symptom formation, destabilization of the personality, delinquency, and other topics. The artificial and conventional nature of some standards for "proper" behavior are well brought out in this passage from Gladwin and Sarason (1953):

> . . . while women must not have their breasts exposed in the presence of those relatives they call "father" or "brother," this does not obtain at night Even in the bright light shed by the electrical system we rigged up with our recording generator on Romonum, women remained without dresses in the presence of such relatives with no apparent sense of shame. (p. 60)

The incidence of various behavior disorders also indicates cultural influence. Stuttering, for example, seems to be determined by a combination of biology, culture, and personal life history. It appears to have been absent among the Bannock and Shoshone Indians but present among the Northwest Coast groups. Lemert (1952) says of the latter:

> The facts indicate that aboriginally stuttering was culturally defined, that stutterers were and still are socially penalized, that parents tended to be specifically concerned or anxious about the speech development of children, that children were anxious about ritual performances involving solo verbal behavior, and the Indian stutterers showed and still show "secondary" symptoms of the defect, which are ordinarily interpreted as distortions of the speech induced by internalizations of anxiety about the speech (p. 441)

Joseph and Murray (1951, pp. 287-288) report only one case of stuttering among two hundred Carolinian and Chamorro children and one among thirty Chamorro adults. Rose (1943) has presented some evidence for the influence of cultural factors in the development of stuttering in contemporary American culture. Johnson (1946, p 442), on inadequate data, has claimed that stuttering is completely absent among unacculturated American Indians. Bullen's (1945) survey does indicate a connection between the incidence of stuttering and the presence of acculturative and other pressures. She states that stuttering is rare or nonexistent among the Australian aborigines, various New Guinea tribes, the Polar Eskimo, the Navaho. She interprets the rare cases as due to white schools, culture conflict situations, and the like.

However, the fact that I have been unable to find a single unequivocal case of complete absence of stuttering among a people suggests that biological or idiosyncratic life history factors can be productive of stuttering in all cultures. On the other hand, impressive differences in degree of incidence suggest that cultural influences are operative. The matter needs much more careful and systematic examination; present data are spotty and reported much too casually — often the mention of a case demonstrates only the fact that stuttering was observed, but one cannot be certain that this was the sole case in the population in question. Henry and Henry (1940) discuss other types of speech disorders among Pilagá Indian children and note that the severest ones occur almost exclusively in females — in a culture which they characterize as "antifeminine." Male stuttering is said to be more common than female in the United States at present.

Data on enuresis are also spotty. Again the indications are that the incidence varies greatly. Sikkema (1947, p 432) reports absence among Japanese children in Hawaii. It is perfectly clear that adult reactions to and interpretations of enuresis vary culturally. Its meaning as a symptom almost certainly does too. Henry (1947) states that enuresis is not a symptom of anxiety among the Pilagá. Fortes (1949b, p 109) states that a wife's wetting of her husband's bed is considered a very grave offense.

The same sort of generalizations may be made as regards thumbsucking. To give only two examples: Beaglehole and Beaglehole (1946, p. 124) say that thumbsucking is rare among Maori children; Leighton and Kluckhohn (1947, p 55) note that thumbsucking is not observed but that there is a limited amount of fingersucking in tense situations. Gladwin and Sarason (1953, p. 77) report that Trukese parents have no objection to hand- or thumbsucking on the part of their children but that such behavior is brief and intermittent. These authors comment that the Truk picture is similar to that reported by Du Bois for Alor: inconsistency in nursing and feeding of children but thumbsucking appreciably less frequent than in American culture. Gladwin (personal communication, 1953) gives an interesting theoretical explanation of this habit:

> Experiments with oral frustration of animals, as well as studies demonstrating the concentration of sensory receptors in the mouth region of infants, have shown conclusively that there is a biological basis for believing that oral stimulation is of potentially major psychological importance in infancy. On the other hand, there is ample evidence that even biologically determined needs in human beings, and particularly those whose gratification is not necessary for survival, find their expression primarily in a manner which the individual has learned from his social experience is rewarding . . . Applying this reasoning to oral stimulation, we would conclude that if it were associated at least part of the time with a rewarding and secure nursing relationship with the mother, thumbsucking could then acquire the capacity to evoke something of the attributes of the original nursing situation, and thus be a partially rewarding substitute. However, if the basic relationship with the mother is one of consistent frustration and a battle just to get enough to eat, our evidence would suggest that any biological "need" for oral gratification is not sufficient in the absence of the breast to elicit the substitute response of thumbsucking. In other words, the infant has the biological equipment to permit him to derive pleasure from sucking his thumb, but the "need" is not sufficiently great to elicit the response if it is not associated with

an adequately rewarding primary relationship with the mother.

The studies of Morselli, Steinmetz, Durkheim, and others have certainly demonstrated the importance of cultural and social factors in suicide The suicide rates in certain groups of African Negroes are "almost unbelievably low by Western standards" (Benedict and Jacks, 1953) Nadel (1951) has argued that the less tolerant a culture is of misfits and the fewer the socially approved ways of living offered, the greater the predisposition to suicide. Straus and Straus (1953) note that suicide is low among the Singhalese of Ceylon, relatively high among the Tamils They present also comparative homicide rates in various districts and populations of Ceylon.

No exhaustive comparative investigation of suicide rates among "primitive" peoples has been made Elwin (1943, p. xvix) notes that the annual suicide rate (per million) among two closely related tribes in India is 22 in one case and 53 in the other It is well known that most Polynesian peoples are prone to suicide attempts (Firth, 1951, p. 74). Fenton (1941) and Wyman and Thorne (1945) have analyzed known cases of suicide among the Iroquois and Navaho, respectively Devereux (1942) has related Mohave funeral suicide to social structure. Hrdlicka (1908) has stated that suicide is rare among the Indians of the Southwest and Northern Mexico, especially among women Joseph and Murray's (1951, p. 271) informants could remember only four cases of suicide in Saipan. Slotkin (1953, p 16) found only three among the Menomini during the last fifty years. Drucker (1951, p 332) reports that his Nootkan informants could remember only one case of suicide. Suicide and attempted suicide cases among the Chinese in Hawaii over a fifteen-year period are considerably less than half those among White Hawaiians (Hsu, 1951b, p 248). Cultural attitudes toward suicide also vary, of course. At times in Japanese history it has been encouraged by public opinion as a response to certain situations; in Tikopia, for example, it is neither condemned nor encouraged (Firth, 1951, p. 75, cf. also Nadel, 1951, p. 143).

A number of studies attest to the influence of cultural factors upon drunkenness and, probably, alcoholism. Horton (1943) has made an excellent survey of the cross-cultural evidence Bunzel (1940) has given a detailed discussion of the facts in two Central American cultures Devereux (1948a) considers the function of alcohol in Mohave society. Landman (1952) and Lolli, *et al.* (1952), reporting on Jewish and Italian cultural groups respectively, will serve as examples of investigations in "modern" populations Bales (1942) has discussed the relevance of various types of social structure in the treatment of alcohol addiction.

There are numerous studies of the use of peyote Peyote does not appear to be habit-forming, and the use of peyote differs from that of alcohol (or opium or marijuana) in that there is not a direct hedonic reward. Nevertheless, interesting psychological problems are involved To cite only two examples, La Barre (1947b) has discussed peyotism as "primitive psychotherapy" Spindler (1952, p. 158) has shown statistically that members of the Peyote Cult among the Menomini represent as a group "a systematic deviation socially and psychologically, and that this is so irrespective of variation in early childhood experience."

Types of crime and incidence of crime are presumptively culturally influenced, but no definitive studies of these topics exist Two papers of Hsu (1951a, 1951b) comparing criminal behavior among Chinese in China, Chinese in Hawaii, and Americans, Elwin's (1943) impressive book, notes by Devereux and Loeb (1943) on Apache criminality, and a paper by Amir (1935) on criminal schizophrenics among the Bataks are the only publications by anthropologists which I have discovered that deal with cultural determination of criminal behavior There are, of course, well-known studies of law and crime in primitive societies by Malinowski, Hogbin, Llewellyn and Hoebel, and others. Hooton's (1939) book gives ethnic breakdowns, but in these and other available data constitutional or "racial" factors are confounded with cultural

Honigmann (1944) has formulated "a culturally relative definition of genital and sexual obscenity" and presents comparative material on pornography and obscenity from a number of cultures, linking these materials to a cultural theory of humor. There are a few papers on gambling as an addiction (e g., Devereux, 1950, Desmond, 1952).

There can be no doubt that some symptoms of mental disorder are culturally influenced (Róheim, 1939; Yap, 1951). Latah, amok, and arctic hysteria are hackneyed examples of this. Yap (1952) has published a comprehensive study of latah. Aberle (1952) has reviewed arctic hysteria and latah in Mongolia. Aberle (1952 and personal communication) maintains that latah is found among urban Westerners, in Negro and Arab Africa, in the European subarctic, India — as well as in Southeast Asia, Mongolia, Manchuria; he suggests that we cannot be sure whether latah's existence or non-

existence is culturally determined, but that the rate is certainly influenced by culture. Gillin (1948) has described a syndrome, "magical fright" (*espanto* or *susto*) current among folk peoples in various parts of Latin America. S. Lee (1950) reports "rigidly stereotyped symptoms" for "Bantu disease" among the Zulu Treatment is likewise culturally patterned, of course This is also well illustrated in Gillin (1948) Dollard and Miller (1950, pp. 258, 419) have pointed out some of the effects of culture upon psychotherapy in our own society. Finally, culturally acceptable rationalizations for "abnormal" anxiety (Kluckhohn, 1944b, Spiro, 1952, Carpenter, 1953, Teicher, ms.) and other aberrant behavior are widely various.

Somewhat less positive statements must be made about the etiology (as opposed to symptom picture) of mental illness It does seem clear that different cultures present varying numbers of possible conflicts and varying socially approved techniques for resolving them The psychological burdens for conformity are not of the same intensity in all cultures. Cultures differ as to those parts of the character which are not subject to conscious examination after the individual reaches a certain age level. Some types of personality fail to find fulfillment in one culture, whereas there is some reason to suppose that they might have flourished in another. Some cultures allow latitude for a variety of personal adjustments, in others the individual who does not conform to the single pattern is punished so cruelly as to become neurotic or, perhaps in the case of constitutional predisposition, psychotic Henry (1951) suggests that.

> . . . the cultural milieu creates at once the conditions for its own pathology (schizophrenia, for example) and its treatment (introspection and highly developed verbalization). (p 102)

However, as pointed out elsewhere in this chapter, there are universal as well as culturally relative factors in mental illness. Honigmann (1953a) draws some distinctions between psychiatric and social abnormality. This whole problem is very complex and neither the empirical evidence nor the conceptual side are, as yet, fully satisfying.

Certainly the incidence of certain types of psychoses or psychosomatic ailments has varied markedly in populations where there is no evidence of accompanying changes in the genetic composition of these populations. In Western countries one may instance the contemporary absence of *grande hysterie,* the increase in cases of peptic ulcer, and the fact that whereas in New York between 1880 and 1900 there were seven female to six male cases of perforated peptic ulcer, the corresponding figures for 1932-39 were twelve males to one female (Mittelman *et al*, 1942, p. 17). In World War I hysterical blindness and paralysis were relatively frequent among American soldiers, in World War II there seems to have been a shift to popularity of psychosomatic disorders of the digestive tract Equally sharp changes in comparable short periods of time are reliably reported for the Kirghiz and other non-Western peoples (Ackerknecht, 1943). Carothers (1948) gives evidence that acculturation influences the rate and type of mental disorder. Gillin (1951) also observes:

> So long as the Indian stays within the framework of his culture, he is less prone to be beset by anxieties and frustrations, which the Ladino culture almost inevitably creates (p 122)

Demerath (1942, p. 706), in a careful survey of the evidence, concludes that "the rarity or absence of schizophrenia among truly primitive peoples has simply not been established" but that "wherever schizophrenia has been reported the society in question has been in process of acculturation."

It is also true that the incidence of the various psychoses varies greatly between peoples. Lin (1953), in a quite comprehensive survey with large samples, records rates for psychoses varying between 3.8 and 14.3 per thousand, and for mental disorder of all types between 6.8 and 59.9. Joseph and Murray (1951, p. 268) report an incidence for Chamorros and Carolinians considerably lower than in the United States. In certain parts of Africa the cases of acute mania are proportionately more numerous than in American mental hospitals, cases of obsessional neurosis less numerous (Carothers, 1948, Tooth, 1950). In 1930 schizophrenia was said to be much less common in Indian hospitals than in those in the United States (Dhunjibhoy, 1930). In Hawaii the part-Hawaiian and the Puerto Rican have the severest incidence of schizophrenia; the Japanese, Chinese, Korean, and Filipinos median incidence, the native Hawaiians the lowest. The Filipinos have the highest incidence of manic-depressive insanity, followed by the Japanese and Koreans, then by the Hawaiian, Chinese, and Portuguese with a notably lower incidence (Beaglehole, 1939a, pp 169-170). Beaglehole (1939b) argues for cultural influence:

> The strong Filipino tendency toward katatonic schizophrenia, the predominance of paranoid schizophrenia among Hawaiians and Portuguese, the equal distribution of manic and depressive states among Japanese patients, the strong tend-

ency of Portuguese and Hawaiians to the manic condition and the equally strong tendency of Koreans (and perhaps also, Chinese and Filipinos) toward the depressive phase in manic-depressive insanity — all these suggest the influence of ethnic or cultural factors (p 170)

However, Book (1950) shows comparable variations in a population in northern Sweden, where the physical environment is as homogeneous as in Hawaii but where major cultural variations do not appear to exist This and other recent genetic studies (such as those of Franz Kallmann) incline one to caution in attributing basic causative determination to culture

Kubie (1950) says:

> It can be taken for granted that cultural forces influence all the secondary and tertiary manifestations of the neurotic process, but the influence of cultural forces on the original dichotomy between conscious and unconscious psychological activity remains to be clarified and demonstrated (p. 73, fn)

A conservative interpretation of the evidence available today would be that culture surely influences or indeed determines some of the manifestations of both neuroses and psychoses and can trigger the precipitation of genetically determined predispositions. But the Scotch verdict of "not proven" must be returned when it comes to fundamental causation. This does not mean that culture is irrelevant to the problem of mental health On the contrary, one must agree with Slotkin (1953, p 16) that "inhibited drives tend to vary with different cultures" and with Beaglehole (1939c, p. 51) that the lines of stress upon the personalities of individuals are determined, in part, by cultural norms. It should be noted finally, however, that one cannot draw a perpendicular from norms to psychic health or illness The influence varies with situation As Aberle (1951) says

> Under one set of conditions Hopi beliefs and values operate to produce security, conformity, and stability; under another set they produce everything from psychosomatic disease to community fission. (p. 124)

Spiro (1950) provides a good general summary.

> The psychological concepts of adjustment and maladjustment — like the biological concepts of adaptation and maladaptation — are not substantive, but rather relational terms An organism is adapted or maladapted not *in vacuo,* but with reference to a particular environment. Any organism, as Dewey has put it so well, lives not "in an environment," but rather "by means of its environment," so that a change in either the organism or the environment destroys their dynamic equilibrium and results in maladaptation. So, too, human personality exists not so much *in* a culture as *by means of* a culture Each culture creates its own particular stresses and strains with which the personality must cope, but, at the same time, the culture also provides instrumentalities — institutionalized techniques — for the resolution of those stresses and strains Now those individuals who, for whatever the reasons — and the reasons are still very much obscure — cannot resolve these culturally created stresses and strains by means of the instrumentalities that the culture itself provides must resolve them by means of personal instrumentalities, idiosyncratic ways known as neuroses or psychoses However, since each culture creates its own unique psychic strains, the kinds of maladjustments and, consequently, the kinds of resolutions of those maladjustments — neuroses and psychoses — will vary from culture to culture (pp 202-203)

There are a number of long (e g., Devereux, 1951a) and brief case studies of "abnormal" individuals in other cultures (for example Hallowell, 1938, Barnouw, 1949; Spiro, 1950; Paul, 1953, Teicher, ms).

The forthcoming review by Benedict and Jacks (1955) is thorough enough and sound enough to draw from at some length. They tentatively conclude that the major functional psychoses occur among all populations, nonliterate and literate alike. They interpret "latah," "windigo," and "piblokto" as acute schizophrenic episodes. Such episodes (and likewise true mania and severe hysterias) are more frequent among "primitives" than among contemporary Western peoples The hostility of the "primitive" psychotic is much more likely to be directed outward, that of the individual from the Jewish-Christian tradition inward. Paranoid schizophrenia and paranoid forms of mental illness in general appear to be relatively infrequent in nonliterate societies — or, at any rate, they are less frequently recognized. Depression is extremely rare in some "primitive" groups, notably the African Negroes. Benedict and Jacks conclude:

> . . . certain cultures appear to develop distinctive varieties of the basic mental disorders, i e., the psychotic deviations themselves are subject to the total cultural configuration and become highly individualized. The *windigo* psychosis of the Cree and Ojibwa, with its marked oral-sadistic component, related to severe oral deprivation, illustrates this kind of cultural shaping . . . Primitive cultures in general . . . afford a maximum of buffering magical devices whereby the defenses of a poorly adapted or disorganized ego structure can be culturally reinforced.

EVALUATIVE BEHAVIOR

Anthropologists increasingly recognize that, if the essence of a culture is its selectivity, the essence of that selectivity depends upon the distinctive values of each culture and their configuration (Kluckhohn, 1951, Kroeber and Kluckhohn, 1952). Many behaviors in various activity spheres can be understood and predicted only if the underlying values are known G P Murdock, for instance, in a personal communication, tells how a Trukese boy was thrashed (unusual on Truk) not because he nearly killed his younger brother but because the incident disturbed the deliberations of the chiefs Even many needs must be seen, not as "givens," but as arising out of the basic values of each culture (Lee, 1948) Even sex mores as applying to children are, as Henry (1949b, p. 100) says, "a function of the more general objectives . of the society in which these mores have their being" At the same time, however, it should be realized that there are universal or near-universal values as well as culturally distinctive values This point will be developed later.

We are only beginning to get empirical studies showing how values directly influence behavior (cf. Firth, 1953) In a comparative study of five geographically contiguous cultures, there is documentation of the effect of the distinctive values of each culture upon land use and land settlement patterns (Landgraf, 1954) The resistance of values to change, even in the face of situational necessity, is remarked on by Vogt (1954).

> The strategic value-orientations of "rugged individualism," mastery over and exploitation of the natural environment, and an optimistic faith in future progress were important positive factors in the migration from Texas and Oklahoma and in the initial settlement and early development of Homestead . . . The response to the threatened decline of the community has tended to center around more vigorous expressions of the same strategic values, with a cumulative effect upon the transformation and/or disappearance of the community.

That values do change, and that conflict accompanies or is consequent upon such change is amply documented. McAllester (1954), in a study of changing Navaho aesthetic values, observes

> *L'art pour l'art,* the separation of the beautiful from the moral, the proper, is an attitude just beginning to emerge in Navaho values. A conflict is discernible between the values of some of the more acculturated young people and the conservative members of the group
>
> [For the conservative Navaho]
>
> The beautiful is the good morals and esthetics are not separable
>
> a) A pretty song should do something for you
> b) Young people should not make so much of those worthless (skip dance) songs
> c) "Sings" should be kept holy " the drunks were spoiling the singing"
>
> *But* [According to the younger men]
>
> "Some songs are prettier than others according to the voice of the fellow"
>
> "A nice tune is when it's not too rough"

Rapaport (1954) gives an account of the influence of missionary activity upon religious values Vogt's (1951) conclusions on the changing values of Navaho veterans suggest some basic linkages between personal behavior and cultural values.

> . the essence of the process is a succession of gradual and often subtle shifts in individual values over long periods of time The process is seen as a complex one involving at first an *imitative* "stage" of acculturation in which selected value patterns of the dominant society are imitated but not internalized At a much later period in the acculturation process, a more fundamental shift occurs in which white values begin to be internalized White values are no longer merely imitated because they are enshrined in the dominant society, but these values come to be integral parts of the motivational system of the individual Navaho in the acculturation situation (p 117)

Hallowell (1951b), reviewing Rorschach and other personality materials on Indian groups of varying degrees of acculturation, expresses himself along similar lines.

> . . . one of the most crucial factors involved seems to be the lack of any positive substitute for that aspect of the aboriginal value system that had its core in religious belief . . The behavior of many Indians is . . . symptomatic of the terrific inner struggle which many individuals are experiencing in reaction to the present paucity of their inner resources An apathy is created which they cannot overcome They are attempting, as best they may, to survive under conditions which, as yet, offer no culturally defined values and goals that have become vitally significant for them and which might serve as the psychological means that would lead to a more positive readjustment (p. 43)

Thompson (1948) has also presented evidence from five Indian tribes that basic values persist and continue to influence behavior long after the explicit culture has been modified to the extent of virtual disappearance.

CHILD TRAINING, BEHAVIOR, AND PERSONALITY

Extensive reviews have been provided by Mead (1946a), Orlansky (1949), and Slotkin (1952). With Orlansky and Hsu's (1952) conclusion that constitutional factors, total cultural situation, and post-infantile experience must be emphasized more than single features of infant care, most anthropologists working in this field would agree. Goldfrank (1945) and Leighton and Kluckhohn (1947, p. 85) published similar findings for the Hopi and Navaho. Gillin (1951, p. 123) notes that the Indians of a Guatemalan village show a constricted character structure in spite of the fact that the first five or six years of their lives are spent in a permissive atmosphere. Underwood and Honigmann (1947) say:

> . . . the Kaska personality norm is introvert and the Haitian extrovert, although in both societies babies are fed when they so desire, receive no pressure to control elimination, are comforted and handled when irritable or playful, and suffer no discipline for emotional willfulness (p. 575).

Nor would some psychoanalysts (cf. Hartmann, Kris, and Loewenstein, 1951) be surprised at the negative and inconclusive results of Sewell's (1952) study of the relation of certain aspects of infant training to personality adjustment. The single disciplines examined by Sewell can serve, at best, as clues to a wider pattern which may have far-reaching, though not unlimited, consequences. Bateson (1944, pp. 727-729), for example, has argued that the formation of a superego of the type we are familiar with in contemporary Western culture rests upon the concatenation of three highly specific and somewhat involved practices.

While total cultures — let alone particular child-training disciplines — never *completely* determine individual personalities in all their uniqueness, it remains a fact that the different ideal personalities (for the two sexes and for various statuses) cherished by different cultures and the training practices which, however imperfectly, both reflect and perpetuate these ideals do have their effects. It is probably true, as Sikkema (1947, p. 431) says, that parental attitudes are more important than methods, but attitudes are also in part cultural products. As Beaglehole and Beaglehole (1946) say:

> A group perpetuates itself biologically by the process of reproduction. It perpetuates itself socially, as a group that is, by transmitting from one generation to the next all the patterns of behaviour, all the ways of feeling and methods of thinking which together make up the culture of the group and which have in the past been found appropriate and adequate for dealing with the problems of living and dying, of coming to terms with the environment, with other human beings, and with supernaturals, whether friendly or hostile (p. 117).

Nor is the cultural influence restricted to each distinct social group. In certain areas (where the biological composition of the various populations is appreciably different but where there exists a generalized cultural framework — "a regional though supertribal resemblance of culture") an areal personality type can be recognized (Hallowell, 1946; Kroeber, 1947; Devereux, 1951a).

On the other hand, there are also instances to the contrary. Murdock and Whiting (1951) note (with reference to Truk and Halik):

> In the same culture area, in nearly adjacent societies with almost the same conditions of life, there were two different patterns of independence training and two different correlates in behavior (p. 18).

It should also be mentioned explicitly that cultures which appear to be quite dissimilar in many basic features of content and form may nevertheless show striking psychological similarities (Goldschmidt, 1951). The reverse is at least a strong possibility (Kroeber, 1948, p. 597).

Finally, we must not forget that cultural patterns related to child rearing may have momentous consequences even where they fail to explain typical features of personality. Whether or not an infant is carried about and how it is carried may influence everything from the amount of sunlight it gets to its chances of survival. Presence or absence of a taboo upon sexual intercourse of parents during the mother's period of lactation affects spacing of children, the age ranges of sibling rivalry, and (in some circumstances) the infant's health and possibilities of attaining a certain age.

Work in this field, however, has suffered as a consequence of its being so fashionable for the last decade or two. It would be conceded generally by anthropologists today that many publications have been hasty, overly schematic, and indeed naive. History and biology have been neglected to varying degrees by many authors. There has been too much assumption of homogeneity, both of culture and personality, in "primitive" cultures and a sometimes shocking disregard of the complexity of "modern" cultures. We must, as Bendix (1952, p. 301) says, "resist the temptation of attributing to the people of another culture the uniformity we are unable to discover in our own." In some

cases there has been a ludicrous overemphasis upon a few aspects (or even a single aspect) of the child-training system "Shame" and "guilt" are much more complex phenomena than some anthropologists have assumed (Piers and Singer, 1953) There has been too little consideration of the effects of the isolation of particular children or groups of children from certain segments of the culture, for, as Murphy (1947, p 841) says, "In the long run, the powerful negative role by which certain parts of the culture are prevented from reaching the child are as important as the positive role" This anthropological specialty can be viewed as a promising infant, but it has certainly been a spoiled or overindulged one

However, it should be remarked explicitly that there has been needless misunderstanding of anthropological writings in this field. When anthropologists have made it perfectly clear that they were stating an inferred tendency in patterned relationships, they have been taken to assert quantitatively founded generalizations In some instances their readers, both anthropological and nonanthropological, have extrapolated hypotheses far beyond tentative conclusions drawn by the writers The following careful statement by Mead (1949a) may be presumed to be an attempt to ward off such misinterpretation:

> In these four cases from the Southwest Pacific, it is possible to trace a correspondence between the way in which the child's physical relationship to the mother is patterned during nursing and weaning and the establishment of a physical sex relationship between man and woman later on Thus the nursing and weaning situation may be seen as the prototype for heterosexual relationships. The paths taken by male and female to reach adulthood, of course, differ in the extent and time at which the male child and female child have to differentiate themselves from the mother The acquisition of a sense of maleness and femaleness is complete enough in Samoa so that it is heavily reflected in childhood behavior and courtship is highly and specifically sexual In Arapesh, the parental feeding role assumed by both sexes blurs the distinction between father and mother, and also overrides the specifically sexual aspect of the husband and wife relationship. In Iatmul, the stress on the wilful demandingness of the child vis-a-vis the mother, is congruent with the later Iatmul valuation on symmetrical, assertive relationships between men and women, combined with a high recognition of the complementary character of sex relations between men and women, which involve a reversal of role but not of pattern from the active mother thrusting her breast into an active infant's mouth to the active male relating himself to an active demanding female Among the Manus, the separation between the parent-child relation and the marital relation, and the preference for father-child over mother-child relations is related in the later low value placed on specific sexuality, with parent-child ties regarded as both competing with and artificially holding together, marriage relationships The emphasis is upon reciprocal relationships, in which food, property, and semen pass from one person to another
>
> In describing these sets of regularities, I am making no claim for the adult pattern of behavior, characteristic of the society, having been developed as a projection of the child's experience Rather, I am attempting to demonstrate the order of interrelationship which can be found between learning patterns of children and adult patterns of sex behavior, in which the treatment of the child not only teaches the child, but reinforces in the adult a style of human intercommunication which permeates the whole cultural pattern. The selection of weaning experience was made because it provides a point upon which it is easy to focus observation, not because weaning is given any crucial significance in a theory of cultural learning (pp 133-134)

There are a few findings which can today claim a high degree of plausibility The first is the regrettably vague one that there is indeed a functional interdependence between culture and personality This was predictable from cultural theory alone, but has been demonstrated, for instance, by Hallowell's (1949b, 1951b) studies of Ojibwa Indian groups of varying degrees of acculturation and by Caudill's (1952) work among the Japanese-Americans A second finding, again well demonstrated by Hallowell's investigations, is that the influence of a culture upon personality may persist long after the more obvious and externally observable aspects of that culture have disappeared (1951b, p 38). On the other hand, Barnouw (1950) contrasts the Chippewa (Ojibwa) and Dakota In the latter case, where the aboriginal social structure was swiftly disrupted, there were much more marked personality changes

These and other findings are interesting and important. But we know little more than we did a generation ago as to how a culture is "built into" a personality, whether some features of a culture are more crucial than others in forming distinctive personality types, or as to the degree of directionality in the mutual interdependence There are also some clear negative findings, mainly expectable Much can be explained only historically and in terms of situation. Hsu (1949) makes a sensible statement:

. no all-inclusive claim is made that the quantitative and qualitative differences between the family patterns in the two types of cultures can explain the origin of everything I have tried to demonstrate the possible connection between the Chinese-Japanese type of family and suppression as the major mechanism of socialization and the possible connection between the American-German type of family and repression as the major mechanism of socialization But these family differences will not explain the origin of loyalty to the wider state of Germany and Japan and the lack of such loyalty in America and China In fact I believe that factors bearing on the latter differences certainly must be sought in a wider field, including historical developments (p 242)

Situational determinants can be equally powerful (cf Kluckhohn and Murray, 1953, pp. 401-434) Likewise, it is certain that one cannot infer personality formation consequences directly from an objective description of cultural patterns for child training It has been shown that roughly identical systems produce contrasting results in accord with the characteristic emotional tone in which they are administered by the mother and others, and with the different meaning which "the same" acts early acquire for children in different cultures, etc.

Murdock and Whiting (1951, pp. 22, 31) report on the testing of various hypotheses with respect to the association between certain forms of social structure, indulgence during infancy, and severity of subsequent socialization. Sororal polygamous societies are found to be more indulgent (with differences significant from the two to ten percent levels and other differences not statistically significant but consistent in the same direction). Nonsororal polygamy is less indulgent earlier and more severe later. Grandparents, when present, tend to insist on the early and severe implantation of the moral code. Whiting and Child (1953) is likewise a pioneering piece of cross-cultural research on child training and personality in seventy-five societies

In addition to these quantitative studies, not based in all instances upon anything like ideal source data, there have been published recently a number of qualitative studies suggesting ingenious and promising new methods and concepts. Wollenstein's (1950) paper on moral training in five ethnic groups in the United States is an example. There are good prospects that we shall learn something substantial about the effects of culturally enjoined child-training practices upon types of personality and that, as Hallowell (1951b, p. 44) says, ". . . in the end we may learn a great deal about the instrumental values of *different* cultural systems in relation to human adjustment."

Today we know little more than that there are interconnections. We see a little of how these are related both to the economy of personalities and also to the maintenance of some stability in societies For, as Gillin (1942) has remarked

Every culture contains certain "normal" anxieties which are inculcated in the members of its society and which motivate certain customs necessary for social control and for religious behavior (p 548)

Certain cultures also exhibit patterns that generate a high level of internal tensions by thwarting basic human needs. It is probable that some methods of socializing children favor the development of adults who "solve" their problems predominantly by projective means However, the excellent summary of the present position by Henry and Boggs (1952) is a sobering one

personality, partly through child-rearing practices, develops into a capacity to maintain the culture in a steady state The completely formed personality is an individual capacity to maintain the total pattern of adjustment that the culture has made to the natural world Hence personality contains adaptive qualities and reflects contradictions that have developed in cultures through time Efforts to change personality therefore meet with obstacles that are inherent in the pattern of adjustment it has made to the total nature-culture environment Conversely, efforts to change culture may encounter the obstacle of personality, which may be able to adapt but slowly, if at all, to large changes in socio-economic organization or technology Under such circumstances one might speculate that the more perfect the integration of personality with the steady-state requirements of the culture, the greater the apparent rigidity of personality and the greater its resistance to innovation Hence the common experience that modern technologies developed in highly industrialized cultures with specialized world views meet with resistance from people from different cultures In such contexts the reasons offered for refusal to accept innovation sometimes are mere rationalizations for fundamental fears that arise on the basis of total personality configurations.

It will be observed that psychopathy develops as a disturbance in the steady-state relationship of personality to the natural environment and the culture. For example, the incapacity of Pilagá Indian children to arrive at a proper adjustment between their giving and withholding tendencies is a threat to the culture's integrity and consequently to its relationship to the natural world.

Conversely, the precarious steady-state relationship of the culture to the natural world finds reflection in personality, which then develops psychopathy consistent with the character of the precarious relationships

In our own culture, some common factors in personality distortion are the following striving toward impossible goals, impossibility of conceiving interpersonal relations except in terms of dominance-submission interaction, feeling of personal devaluation, and preoccupation with minutiae, hard work, achievement, and success These in turn are related to a highly developed industrial technology and an expanding socio-economic organization that place high premium on constantly increasing speed, productivity, and efficiency, and on increasing consumption of goods In this total process, sleeplessness and disturbance in gastro-intestinal function are expected symptoms of emotional illness and may be related to, though they are not necessarily determined by, early nursing experiences and the institutional structure of postnatal care

Thus in our own culture, as well as in primitive culture, the essential dynamics of behavior disorder can be related to a steady-state hypothesis when a precise methodology is at hand

The greatest obstacle to understanding personality development is the absence of good observations of infant behavior All theories of human development will remain hypothetical reconstructions until there is a good body of direct observations on child development *made in the customary surroundings of the child* [italics introduced] These observations must be made up of planned samplings of considerable duration, repeated over selected time intervals It is not enough to observe a child for a few minutes once a year, nor is it possible to obtain an understanding of the process of a child's development if the child is taken out of its natural habitat, away from natural associates and associations In studies of personality development such as are suggested here, statistical techniques will naturally find their place, as indicated in the analysis of mother-baby interaction, in our own culture Only in this way will precision come to replace the necessary inadequacies of the anamnestic method, and the even worse blunders of anthropological impressionism (pp 270-271)

Universal Behaviors

As Honigmann (1952, p 430) has pointed out, anthropology deals with two kinds of hypotheses one kind related to behavior in particular cultures, the other to types or classes of behavior that are universal It is true, as a number of psychologists and notably Professor Gordon Allport have insisted, that for roughly half a century now anthropologists have concentrated preponderantly upon culturally distinctive or culturally relative behaviors Nevertheless there has been more effort at stating and testing universal hypotheses than many psychologists recognize Murdock (1949) and Lévi-Strauss (1949) are outstanding examples Whiting and Child (1953) state as one of the major conclusions of their investigation

> . . there are some principles of personality development which hold true for mankind in general and not just for Western culture (p. 305)

Honigmann (1952, p. 431) reminds us of an instance on a smaller scale. Hallowell (1946, p. 222) correlates fear of sorcery with atomistic social structure. B. Whiting's (1950) monograph provides one clear-cut confirmation of Hallowell's thesis that there is a "dependable but not invariant" relationship between the degree of in-group sorcery and the degree of social atomism in the community

In the most literal sense no two behavioral events are identical. Only at higher levels of abstraction can striking similarities be established There are some fairly impressive likenesses in the content of all, or most, cultures, but some even more impressive likenesses in classes or types of events on a panhuman perspective As Homans (1950) has remarked

> Human behavior in fact varies greatly the world over. But though behavior may vary, our belief is that the relationships between the elements of behavior remain the same (p 443)

I have recently (Kluckhohn, 1953) published a review of this problem. Here I shall only summarize briefly and add a few points

One could list a fair number of genuine universals in culture content For example, there are no languages which lack "words" beginning with consonants, although there are some that do not permit "words" beginning with vowels Some types of sounds are learned by young children earlier than others in all languages There are languages which have stops and no fricatives, but the reverse is never true (cf Jakobson in Tax *et al*, 1953, pp 312-313). Filiation is universally bilateral (Fortes, 1953, p 33) These and other examples which could be mustered would be trivial in themselves as far as the point at issue is concerned except that, in sum, they do establish the highly significant theoretical conclusion that cultural variability is by no means unlimited.

More arresting, though too often forgotten or neglected, are the regularities in form that cross-

cut the variations in detailed content: marriage, phonemes and morphemes, counting (cf. Wilder, 1950, p. 268), incest taboos, deference to parents ("honor thy father and mother") on the part of at least pre-adolescent children, reciprocity or basic compensation (Firth, 1951, p. 76), the fact that moral values are the underlying principles of all forms of social organization (Fortes, 1949b, p. 346), music and graphic arts, personal names, myths, rational or pseudorational explanations of phenomena, self-images (Hallowell, 1954, Mauss, 1938). Certain emotions (anger, fear, and others) are recognized and named by all cultures (Firth, 1951, p. 128), although both their behavioral manifestations and the nuances of linguistic definition vary greatly and importantly. World-wide parallels (even among "civilized" peoples) in the principles of magic are well known. In all cultures human beings depend upon the emotional responses of one another, and this leads to similarities in cultural forms. All human groups classify or categorize. Grammar (i.e., standard devices for expressing relations) is one universal manifestation of this tendency.

Cross-cultural likenesses in values are partly substantive: no culture has made of human suffering an end of and for itself, nowhere is indiscriminate lying and cheating within the group approved. And as Firth (1951, p. 201) says, ". . . in all human societies there is a basic view that it is good as a general rule to attempt to preserve human life." More often, resemblances which may be termed "universal values" are primarily formal. Very similar values are embodied or expressed in different ways. Some order in society and some predictability in human behavior are valued in all cultures, but such identical or comparable values are realized in a variety of ways, different cultures use varying methods and forms of expression. Indeed, many of the more specific values that attain or approach universality (such as taboos on incest and interdiction of lying) are essentially means differing in detail and combined with varying emphases to support and protect such more ultimate universal values. Finally, it should be noted that when anthropologists condemn ethnocentrism they are in part inevitably assuming some more universal standard.

There are also regularities in cultural process, largely dependent, to be sure, on noncultural conditions. Steward (1949) says, for example.

> In densely settled areas, internal needs will produce an orderly interrelationship of environment, subsistence patterns, social groupings, occupational specialization, and over-all political, religious, and perhaps military integrating factors. These interrelated institutions do not have unlimited variability, for they must be adapted to the requirements of subsistence patterns established in particular environments, they involve a cultural ecology. (p. 24)

Ruesch and Bateson (1951) make points along similar lines.

> Flexibility and change are essentially related to metropolitan industrial as well as to nomadic life, resulting in delegated, functional authority. In contrast, authority as a personality feature develops where there is a preponderance of agriculture, and where people settle in small villages. Here we find the typical hierarchical and patriarchal structure in which the division of labor, distribution of power, and assignment of authority can remain the same throughout a lifetime. (p. 159)

Henry (in Tax *et al.*, 1953) has drawn attention to still other categories of universal culture.

> I would like to suggest some categories of universal culture which have been very useful to me and which are ordinarily not included in general anthropological discussion. They have the quality of a high level of abstraction and consequent invariance.
>
> I would like to consider the relationship between activities performed under constraint and as free choice . . . between a punishment for nonconformity and recognition for conformity, between what the culture promises and what the culture actually gives, between painful experiences and gratifying experiences, also the relationship between the consideration one must give to the satisfaction of one's own needs as contrasted with the consideration one must give to the satisfaction of other people's needs.
>
> All these categories can be found in all human cultures. (p. 106)

So also can aesthetics, warfare (except for the special case of the Chatham Islanders. Linton, in Tax *et al.*, 1953, p. 120), categorical and natural groups (Coon, 1946), sibling rivalry, and the Oedipus complex. The precise manifestations of these categories vary from culture to culture just as the weight of the same objects would vary from planet to planet in the solar system. Typical relationships between father and son vary in accord with types of social organization, but there remains, to greater or lesser degree, conscious and unconscious rivalry between them (Homans, 1950, pp. 28-29).

Similarly, neither "abnormality" nor cultural conceptions of it are completely culturally relative. Joseph and Murray (1951) comment:

> a gesture, a relationship between parent and child, a method of addressing the deity, a convention for the composition of poetry, and a system of mortgaging property may all be seen as systematic. (p. 482)

It is because their experience has so deeply underlined the significance of the ramified context (as well as because they suspect cultural parochialism in many of the categories of contemporary Western psychology) that anthropologists are cautious about accepting the universal applicability of various theories of learning. A psychiatrist and anthropologist (Ruesch and Bateson, 1951) have tried to reformulate some of the basic principles

> We are, in fact, coining the beginnings of a set of formal categories for describing character structure, and these descriptions are derived not from what the subject has learned in the old simple sense of the word "learning," but from the *context* in which the simple learning occurred. (p. 217)

So far as the categories are concerned, it may well be that some anthropological reactions to the Law of Effect, for instance, have been colored by the subculture of anthropolgists. This has a strong undercurrent of biological thinking which may have led anthropologists to equate "goal response" or "climax" too simply with the kind of biological process represented by orgasm.

The main positive use to psychologists of conceptual models of cultures is that they specify for psychologists the behavior (including ideational behavior) which is traditional or expected in a given group or subgroup. Operationally, one does not even need to beg the question as to whether culture influences — let alone determines — behavior. Given a knowledge of the relevant culture patterns and their interrelations, the behavioral scientist can satisfactorily predict in *some* areas of behavior what the majority or at least the modal response will be under defined circumstances in that group as contrasted with others. In thoroughly studied cultures one can also with some confidence make predictive statements about interdependence between various activity spheres, statements as to what sorts of changes in one behavioral area are likely to follow observed changes in another area. In the jargon of communication theory the psychologist can become a decoder, using the pre-established code — i.e., the network of cultural patterns. For cultures have structure ("code") as well as content ("message"). The indispensable importance of implicit as well as explicit culture must once again be emphasized. As Herskovits (1951, p. 153) says ". . . culture may be thought of as a kind of psychological iceberg of whose totality but a small proportion appears above the level of consciousness."

It is not necessary to go to exotic cultures to find verification for these generalizations The social scientist can observe the evidence in the ordinary run of his professional experience Different cultures may be thought of as different ways of conceptualizing experience. This phenomenon can surely be noticed in the professional subcultures that grow up in different universities, different regions of the United States, and indeed in professional societies cutting across universities and regions At an international level the variations in scientific work that can hardly be traced to genetic differences or social-situational factors are even more striking H. A. Murray has long ago pointed out that European psychoanalysis was essentially a torso psychology, relatively unaware of limbs and motor activity. American psychology has characteristically given the reverse emphasis, and it may be remarked in passing that American psychoanalysis has, in less than a generation, begun to remodel psychoanalytic theory in distinctively American directions — in spite of the proportion of American psychoanalytic leaders who were born and trained in Europe Murray (1951) has commented recently upon another cultural characteristic of American psychology.

> In America it is customary for psychologists to take the hunger drive (food-seeking and eating behavior) and the sex drive (mate-seeking and copulative behavior) in animals (rats, monkeys) as basic illustrations of motivated activity This practice has helped to clarify certain issues, but by restricting attention to two kinds of relatively simple tendencies, it has served to discourage efforts to conceptualize other kinds of activities, especially "higher order" activities. (p 9)

In the United States professional prestige rewards are heavily weighted in favor of "behavioristic" or "experimental" psychology. This simply reflects certain tendencies within the larger culture. The situation also exhibits the cultural point that the self-evaluation of human beings, including behavioral scientists, mirrors the conventionalized judgment of the groups significant to the individual and reflects especially the prime cultural values of those groups.

None of the foregoing should be interpreted to signify that the writer believes that even the most complete knowledge of cultures and subcultures makes intensive studies of individuals

unnecessary. Quite the contrary, Hartmann, Kris, and Loewenstein (1951) are right in the following strictures:

> . . . no short-cuts from institutionalized behavior to an individual attitude or tendency are psychologically warranted. The American who follows the behavior pattern of his group may impress Englishmen as boisterous, the Englishman who follows his own tradition may impress Americans as arrogant — but applied to the individual we can obviously make no statement as to boisterousness of any given American, or arrogance of any given Englishman. The behavior of both may have its own meaning for each of them. In taking as an indicator the institutionalized behavior, the habit, one would behave as if . . . not the mother's attitude to her child, but only the routine she follows was decisive.
>
> This is in fact what anthropologists are tempted to do they tend to draw conclusions from observed behavior to underlying motivations and neglect frequently, paradoxically enough, to take into account that in different environments similar impulses may find different expressions . . . what reality means to the individual, what opportunity for direct discharge processes it offers, and which defenses it encourages, has to be taken into account when we refer to environment or reality in a context in which psychodynamic hypotheses are being used. (pp. 28-29)

Rose (1946, p. 592) also correctly points out that, while the discovery of cultural premises will permit predictions as to how people will usually act under certain conditions, the cultural approach may lead to an exaggeration of the stability and consistency of behavior and does not directly lead to the establishment of the nature of innate human nature.

Nevertheless, the study of cultures can aid the psychologist in avoiding two mistakes: first, the taking of any bit of behavior as *necessarily* revealing anything about the nature of the individual as a unique organism; second, the acceptance of any act as *necessarily* significant as regards the innate properties of human beings as members of one biological species Some psychologists are today fully aware of these propositions. Sargent (1950, p. 163; cf. also Cole, 1953) writes that the study of motives "apart from social settings is fruitless if not actually misleading." Other psychologists, however, still proceed as if cultural facts were unimportant epiphenomena, eventually reducible to psychological terms in any case. Or, they proceed as if attention to cultural factors might be necessary in New Guinea but scarcely in "modern civilization." Nowhere is this fallacy more apparent than in the field of attitude studies. As Rose (1948, p. 617) points out (giving a table based on 37 experiments in different places), this is an important source of conflicting findings from similar experiments Michael (1951) has shown how knowledge of a culture and its subcultures can help illuminate public opinion data. Pollsters have hardly begun to face the problems of *cultural* sampling or of needed revisions in techniques in different cultures. American teams go abroad and try to follow, mechanically, the same time schedules even in groups where considerable time must be spent in preliminary ceremonial procedures if rapport adequate to proper sampling is to be achieved. Wholly inadequate data are obtained, but these are then processed with the usual scrupulous attention to statistical methodology

Crutchfield (1951) has published an ingenious method for the assessment of persons in situations of social interaction But he claims (p. 577) that this technique guarantees identical stimulus conditions for all the subjects *No* technique can assure "identical stimulus conditions" unless (as *one* condition) all of the subjects comes from precisely the same subculture Finally, the psychologist who really wants to get to "raw human nature" must know a good deal about the cultural factors in his own behavior as well as in that of his subjects. Culture is the area of the taken-for granted, and scientists cannot afford to take unexamined things for granted.

Most anthropologists would accept Dennis' (1940, p. 316) statement that "the characteristics of infancy are universal and that culture overlays or modifies a more basic substratum of behavior." We eagerly seek to learn from psychologists the nature of this basic behavioral substratum. Yet we feel that while laws of learning and other psychological laws may be universal, they are formal and without cultural content. Moreover, many anthropologists are convinced that contemporary learning theories have only a limited usefulness to anthropology because these theories appear to be the psychological counterpart of the atomistic "trait" theory of "historical" ethnology.

The laws of social psychology must be, in the anthropological view, transformed into laws which take account, where necessary, of cultural factors. The dozens of systematic books on social psychology usually pay their verbal respects to culture at one or more points, but nearly all conspicuously refrain from dealing with the cultures produced by psycho-social mechanisms. Persons undoubtedly produce cultural forms, but our knowledge of persons in social behavior

has so far notably failed to explain the cultural forms. to derive specific cultural effects from specific psychic or social causes

This is one of a number of reasons why anthropologists are skeptical of attempts, overt or disguised, to "reduce" culture to psychology The clearest case is furnished by linguistics Speech is a wholly human and wholly social phenomenon, but linguistics thrives by being completely anonymous and impersonal, with a minimum of reference to its carriers and their psychology, and by dealing with the relations of specific forms, without serious concern for their specific productive causes The relation of *d, t, ts,* in *deux, two, zwei,* is a "law" in the sense of being a regularity of form, of consistent relation of pattern. But the linguist does not generally ask what made English have *t* where French has *d.* He could not give the answer and he knows he could not, and — if he has even thought about it — he probably suspects that no reductionist could give it either. The linguist may also be quite ready to concede that in his way the physicist is right if he claims that actually language *is* varying air vibrations made by the larynges and mouths of individuals of *Homo sapiens.* On the physicist's level language is that and remains that. The linguist gets something more significant than air waves out of his material because he does not try to explain it either through airwaves or through efficient causes residing in persons, but by taking such causality for granted and concerning himself with the *interrelations* (structure) of linguistic *forms.*

Culture as a whole is more manifold and less channeled than its part, language. That perhaps is why students of culture have been less courageous or decisive than the linguists. Redfield (in Tax *et al*, 1953, p. 120) has suggested that the isolation of something comparable to phonemes and morphemes is not impossible in the field of mythology Recent papers by structural linguists (Harris, 1952a,b, Bloch, 1953) suggest a way in which anthropologists may objectively establish fundamental entities in aspects of culture other than language. Mead (1952a), however, has well indicated why it has been possible to do this first in language and some of the problems of extending the technique to areas where we lack analogs to the clear-cut biological points of the articulation of speech, physical criteria of sound production, and the like:

> . . . a language (in contradistinction to the rest of culture) has such systematic qualities that it can be "learned" by the immigrant and the bilingual specialist who retain the food habits and even the postural systems of their own cultures. (p 257)
>
> linguistics seems to be the body of learned behavior which is most susceptible to such analysis for the reason that the special relationship between receptor systems and effector systems provides a double sensory standardization This aspect of language can be high-lighted sharply by comparing a few other sensory modalities cross-culturally Compare, for example, the degree of standardization or systematization that exists between two sets of speakers — an East European Jewish parent and child and a Southern Italian parent and child — when speaking of a divine being. The Jewish speakers mentioning the Lord would have to use the same degree of linguistic accuracy as the Italians mentioning Our Lady, and the linguist would record each with the same procedures But in the Jewish case, whatever visual images there were in the mind of each are not specified, in the Italian case, the statue of Our Lady carried in processions and cited by both mother and child informants could be photographed, independently, and also reproduced with identifiable accuracy if an Italian parent and child were asked to draw what was in their minds The same sort of contrasts can be found in discrimination of gesture sequences, in communication which involves culturally patterned food preparation (in which the discrimination involved in eating may be more or less closely related to the discriminations involved in the preparation of the food), or in the handling of infants (where the tonus of the infant may be systematically related to the parental handling, at an articulate culturally shared level which can be ascertained by careful analysis, or so circuitously related to other variables that exact determination is impossible) (p 259)

Like language, culture exists only in and through human individuals and their psychosomatic properties. But cultural behavior acquires a certain larger intelligibility and systematic significance in the degree that cultural analysis takes these persons for granted and proceeds to investigate the interrelations of superpersonal forms of culture. Culture may well yet reveal "laws" similar to the "laws" which the linguist calls sound shifts; only they will presumably be, like these, dynamic trends (synchronic or sequential) in structures, not laws of efficient causality.

On the basis of such considerations, also, anthropologists show more reserve than most social psychologists regarding the kinds of problems that can appropriately be dealt with by statistical analysis and on the limits of the statistical approach to behavior in its social and cultural settings. Part of the present dominant attitude in cultural anthropology is a result of

the bitter lesson learned in physical anthropology The traditional physical anthropology used measurements which arose from "common sense" as applied to human anatomy It took a long time to discover that many of these measurements were actually composites which averaged independent variables and neglected the significant patterns (cf Washburn, 1951).

Contemporary cultural anthropologists use quantitative techniques a great deal, particularly in the field of social organization Demography and social organization are obviously interconnected, and it is clear that counting is not only important but actually necessary to both Fortes (1949a, p. 57) considers "culture" as "the qualitative aspect of social facts" and "structure" as "those features of social events and organizations which are actually or ideally susceptible of quantitative description and analysis" In a paper published in the same year, Fortes (1949b) has brilliantly shown with Ashanti data how certain aspects of social organization become evident *only* with quantitative analysis Yet Fortes himself (1949a, p 59) says, "Statistical techniques are not essential and are perhaps even inappropriate in the study of social life from the cultural aspect."

With quantitative approaches there can be no possible quarrel — unless there is the further implication or assertion that quantification is appropriate or necessary to *all* aspects of cultural anthropology It should be remembered that there are *two* branches of cultural anthropology in which elegance and precision have been achieved comparable, at their best, to mathematics and phases of the natural sciences One of these is social organization, where counting has been of great, though by no means exclusive, importance. But the other is linguistics, where, as Whorf (1940b) says:

> Measuring, weighing, and pointer-reading devices are seldom needed in linguistics, for quantity and number play little part in the realm of pattern, where there are no variables but, instead, abrupt alterations from one configuration to another. (p. 7)

Students of human life who pride themselves on being "scientific" still tend, consciously or unconsciously, to hold the view of "science" set forth in Karl Pearson's famous *Grammar*. Laboratory or experimental scientists commonly take an attitude of superiority to historical problems which, incidentally, they can't solve. They not only take physics as their model but specifically nineteenth-century physics. Here problems of measurable incidence and intensity predominate. Such problems also have their importance in anthropology, but the most difficult and most essential problems about culture cannot be answered in these terms As W M. Wheeler is said to have remarked, "Form is the secretion of culture." Form is a matter of ordering, of arrangement, of emphasis. Measurement in and of itself will seldom provide a valid description of distinctive form. Exactly the same measurable entities differ; the configurations may have vastly different properties. Consider the representational drawing of French phonemic structure in Jakobson and Lotz's elegant paper (1949) or the configurational charts in Harris' (1951) *Methods of Structural Linguistics* (cf. Fowler, 1952, McQuown, 1952). But the bias of contemporary American culture, represented in a dramatic way (almost to the point of parody!) by contemporary American psychology, is for "facts," gadgets, "behaviorism," counting, and measuring. Anthropologists are more likely to agree with the psychiatrist, Kubie (1947)

> . . I do not believe every effort to explain psychological phenomena through quantitative variables is necessarily incorrect. It is my thesis rather that the easy assumption of quantitative variables as the only ultimate explanation of every variation in behavior is one of the seductive fallacies to which all psychological theorizing is prone. When in doubt one can always say that some component of human psychology is bigger or smaller, more intense or less intense, more or less highly charged with "energy," or with degraded energy, and by these words delude ourselves into believing that we have explained a phenomenon which we have merely described in metaphors. (p. 508)

Quantification is one thing. Ethnographers undoubtedly ought to give more information on incidence, range, and the like. Mathematical analysis of quantified data, however, is another thing Experimental psychology and various social sciences have made of statistics a main methodological instrument. Reichenbach has argued that any proposition is a probability statement, and that hence some form of the notion of chance has universal applicability Certainly, a statistic founded upon the logic of probability has been and will continue to be of great use to cultural anthropology. But, again, the main unresolved problems of culture theory will never be resolved by statistical techniques precisely because cultural behavior is patterned and *never* randomly distributed, although in some cases hypotheses arrived at by pattern analysis can appropriately be *tested* by statistical techniques (F Kluckhohn, Strodtbeck, and Roberts, 1954). And there are some recent developments in statistical theory and

technique which may hold promise for discovery as well as validation of even implicit culture. for example, Lazarsfeld's latent structure analysis and Osgood and Suci's (1952) method, which seems to permit taking into account both profile similarity among sets of measurements and also their mean differences, leading, in some cases, to graphic representations that are reminiscent of some models of phonemic systems

Mathematical help may come from matrix algebra or some form of topological mathematics. This has been shown to be useful in Weil's appendix to Lévi-Strauss' book on social structure (1949). Perhaps a completely new kind of mathematics is required This seems to be the implication in Weaver (1948). Perhaps greater development of the mathematics of nonlinear partial differential equations or integro-differential equations might help materially. So may the Markov process analyses, which permit probability estimates depending upon events which occurred just before the estimation.

None of this argument is intended to deprecate the significance of the mathematical and quantitative dimensions in science generally and in anthropology in particular The points are these: (a) perhaps — in accord with the bias of our culture — we ask too many questions that can be answered only mathematically, (b) the specific mathematics must be that suited to the nature of the problem; and (c) there are places where presently available methods are essential and places where they are irrelevant and actually misleading. Bateson (1947) makes the point:

> Another peculiarity of the data collected by cultural anthropologists is the extreme complexity of each individual datum. The requirement that each datum include full identification of the individual and description of the context is perhaps never fully met in practice. The fact remains, however, that a very large number of circumstances are always relevant, in the sense that a small change in any one of them might reverse, or drastically change, the form of the behavior which we are recording There is, therefore, almost no possibility of handling the data statistically. The contexts, the individuals, and the behaviors are too various for their combinations and permutations to be handled in this way. The unit data of which any sample is composed are too heterogeneous to be legitimately thrown together into a statistical hopper. (p. 651)

Such considerations apply to experiments of the type that social psychologists conduct. Cultural anthropologists are now conducting a limited amount of experimental work of the same general order, but most anthropologists feel strongly that anthropology must continue to hold to its "clinical" approach, viewing its data in the very complicated, structured context (i e, pattern) in which each datum is placed in ordinary life. Apperception and somewhat rough and ready methods must not be surrendered for the satisfying precision of experimental and statistical techniques if students of human behavior are more interested in what goes on in the flux of normal living than they are in what goes on in the artificially simplified situation of the laboratory. Experimental and observational work are both necessary, but, as Mead (1946b) notes, there are essential differences

> There is an essential contradiction between the experiment which relies upon the competency with which the experimenter imposes his conditions and the method of observation in which the observer finds his answer the more completely he leaves the conditions unaltered. (p 484)

Moreover, most anthropologists are convinced that some of the "precision" and "controls" of the experimental room are illusory. As Rose (1948) says:

> . . . the social scientist . . . finds that his stimulus is a complex of elements, some of which he may have no control over, and each of which may have a different effect on the experimental group. It may be difficult or impossible to reproduce the stimulus exactly for subsequent tests . Yet the social science experimenter finds it difficult to specify a simpler stimulus than a movie without sacrificing its realism. (p 618)

And, as Wiener (1950) has remarked.

> No self-respecting scientist has any right to give the impression of a mathematical analysis of difficult situations, unless he is using language which he can understand and which he can apply correctly Short of this, a purely descriptive account of the gross appearance of a phenomenon is both more honest and more scientific. (p. 26)

Anthropologists must not cease to describe the full range of behaviors around the universal situational and functional cores from which all culture patterns arise Each different culture *deals* with universal problems posed by human biology and the human situation. Cultural differences must be delineated against a common humanity.

The simple biological analogy of "organism and environment" is inadequate because man is a culture-bearing animal. Some sort of three-way paradigm is necessary since we have: (a) individuals, (b) the situations in which they

find themselves, and (c) the modes or ways in which they are oriented to these situations In terms of the intellectual division of labor which has generally been adhered to during this century, the study of individual organisms and their motivations has been the province of psychology and biology. Insofar as sociology has had a distinct conceptual field, it has been that of investigation of the situation. Cultural anthropology has been dealing with the modes of orientation to the situation. How the individual is oriented to his situation is, in the concrete sense, "within" the actor, but not in the analytic sense, for modal orientations cannot, by definition, be derived from observing and questioning a single individual — they are culture. It is clear that these three points of the triangle are statements of foci in a broader frame of reference, they are not independent, but each has implications for the other. For example, culture is not motivation, but it affects motivation and likewise is part of the individual's "definition of the situation."

It is perfectly true that culture not only "conditions" individuals but is also "conditioned" by them. There is a ceaseless interplay between the tendencies toward standardization that inhere in cultural norms and the tendencies toward variation that inhere in the processes of biological heredity and biological development. However, any argument over "primacy" is as bootless as any other question cast in the chicken or the egg formula. To be sure, there were presumably human or at least humanoid organisms before there was culture. But as far as the phenomena with which anthropologists and psychologists can actually deal, the issue of "primacy" resolves itself into a selection between problems and between equally legitimate and complementary frames of reference.

Study of the psychological factors behind culture is clearly essential to a satisfactory theory of the cultural phenomenon. For historical accident, environmental pressures, and seemingly immanent causation, though all important, are not adequate to explain fully the observed facts of cultural differentiation. Unless we are to assume that each distinct culture was divinely revealed to its carriers, we must have recourse to psychology as part of the process.

Thus far only the psychoanalysts have proposed somewhat systematic theories on the origins and differentiations of cultures. How helpful the suggestions of Freud, Róheim, and Kardiner are is arguable. Freud's "Just So Stories" are contradicted, at least in detail, by much anthropological evidence. It also appears to most anthropologists that Freud exaggerated "cultural privation" at the expense of the many ways in which cultures reward and gratify those who participate in them. Insofar as Freud was saying merely that family life and social life in general were possible only at the price of surrendering many "instinctual gratifications" to the control of cultural norms, few anthropologists would gainsay him. Many would likewise agree that culture is to a large degree a "sublimation" — i.e., a redirecting of bodily energies from such immediate satisfactions as sex and aggression.

Freud developed a putative explanation of culture in general but hardly of the variations between cultures. Róheim (1950), however, has offered such a theory. This briefly is that the distinctiveness of each culture is to be understood in terms of the infantile traumata maximized by the child-training practices of that culture. The institutions of the adult culture are reaction formations against the specific "instinctual deprivations" emphasized in what Herskovits calls the process of "enculturation." Obviously, this cannot serve as an explanation of the *origins* of the special features of each culture. Róheim would have to resort to historical accident for that. His theory may be useful in understanding the perpetuation of a set of culture patterns.

On the whole, the last few years have seen considerable improvement in communication between psychoanalysts and anthropologists and a recasting of certain central propositions on both sides in forms more nearly acceptable to each of the two groups. Thus Róheim (1950) says:

> . . the theory of cultural conditioning cannot account for certain parallelisms in widely divergent cultures . . . the psychic unity of mankind is more than a working hypothesis . . . cross-cultural parallels, although *they may have an additional context-determined meaning*, have an underlying meaning that is independent of the social system or culture or basic institutions and is based on the nature of the primary process. There is such a thing as a potentially universal symbolism. The latent content is universal, but the symbol itself may become verbalized by a certain individual or many individuals in many parts of the world and then accepted by others on basis of the universal latent content . . . those who condition are subject to the same biological laws as are the others whom they are conditioning. (pp. 5, 435, 488, 489; italics Róheim's)

However, while Róheim's (1950, p. 439) most recent theory is not monistic, it is reductionist: ". . . when we talk of phenomena explained in terms of culture what we are really talking

about is psychology . . " From this point of view the observations of Hartmann, Kris, and Loewenstein (1951) are more satisfactory

> The comparative study of culture includes the question as to variant and invariant traits of "human nature " The "biological" is neither limited to the innate nor identical with invariant traits in man
>
> There is obviously a vast area in which the same statements are part of both biological and sociological sets of assumptions The biological approach thus indicates a framework within which the fact that man is the social animal becomes meaningful Once this has become clarified it becomes evident that the study of human behavior can, and in many cases must, be viewed from both sides we can characterize the relationship between mother and child as a biological relationship or we can characterize it as a social one. the fact that both concatenations are overlapping constitutes the human . Both [psychoanalysts and anthropologists] are interested in the same processes, but they are partly using data of different kinds . . (pp. 6, 10)

Everyone will agree that human biology and those aspects of human psychology that arise from biological potentialities set limiting frames for cultures How the selections that are possible within these frames are arrived at by different peoples each in a somewhat distinctive way — this is one of the largest questions in culture theory and one which has hardly gone beyond the phase of speculation and reasoning by analogy and the illustrative example. It does seem certain that simplistic "functional" explanations will help only a little.

Neither a society nor an individual will survive unless behavior makes a certain minimum of sense in terms of environmental demands. But how is one to account thus for the enormously diverse conceptions of time found in the cultures of the world? The ancient Egyptians were pioneers in astronomical and calendrical investigations. This makes good "functional" sense, for Egyptian agriculture was tied to the periodicities in the inundations of the Nile. Why, however, is the dominant theme in Egyptian thought, as we have recently been assured by Frankfort (1948), the conviction that the universe is static and that only the changeless is ultimately significant? Did the Judaic conception of sin originate in the Near East because this had unusual survival or adjustive value under the circumstances of life in this area?

It seems more likely that conceptions of time and of the good life were largely determined by the accidents of history operating through psychological mechanisms as yet unknown, but including the genius and temperament of individuals who happened to be born at a crucial period and born to key positions in the social structure Societies make what, for want of a more accurate word, we may call "choices." Such decisions are of special importance when a new culture is being created or when an old one has become relatively loose and malleable under extreme stress But with societies, as with individuals, any crucial "choice" is to greater or lesser degree a determiner of later ones Once a group starts down one road, the paths that would have opened up on another route that was "objectively" available will not be traversed, even if they should be, the territory will be reacted to, not freshly, but in a fashion colored and shaped by the experience upon the first road The principle of "limitation of possibilities" is operative However, there is no steadily increasing spiral of determinism, for "choices" made at one time point also have the effect of "freeing" a group from commitments made by earlier selections.

The assumption of anthropological "functionalism" that culture is solely the result of response to physiological drives and needs, as modified by acquired drives, reduces culture change to the equivocation "culture begets or determines culture." Undoubtedly the systematic quality of each culture does tend to give cultures the property or at least appearance of immanence or orthogenesis Some culture change may well be predetermined once the culture has assumed its fundamental organization. Much more, however, culture change seems to be due to the ceaseless feedback between factors of idiosyncratic and universal human motivation, on the one hand, and factors of universal and special situation, on the other.

Nevertheless, we can consistently and explicitly recognize the interdependence of cultural and psychological phenomena. While anthropologists will always resist the strivings of some psychologists to reduce culture to psychology, they increasingly acknowledge that psychologists and anthropologists inevitably start from data of the same order, namely, human behavior. They may start from the same particular data, but often do not, because their interests and problems usually differ. More concretely: a psychologist seldom starts with a custom considered as such, anthropologists hardly from acts of learning or remembering as such. To the psychologist a fresco of Giotto is primarily a datum on a certain creative personality. To the anthropologist the fresco is a datum of art style of a certain period in Italy

and a culture content (costume, house types, other artifacts, etc). A segment of behavior may be seen either as exemplifying culture pattern or as having a person-defining value.

Moreover, culture and personality are not only different abstractions from data of the same order, they have intrinsic similarities. Certain definitions of culture state that it is a "mental" phenomenon, and many definitions of personality start from the same premise. Both personalities and cultures appear to acquire their distinctiveness at least as much from organization as from content. More and more personality psychologists and anthropologists have had recourse to such ideas as "themes," "configurations," "orientations," and "implicit logics" in constructing their conceptual models.

Benedict's famous parallels were of a slightly different order — between personality *types* and cultural *types*. Yet she seemed to many of her readers to be saying culture is personality writ large; personality is culture writ small. The equation of culture with the personality of a society or of personality as the subjective side of culture represents an unfortunate oversimplification. The former analogy leads to the brink of the "group-mind" fallacy. The latter is false because culture is far from being the only constituent of personality, a unique biological heredity and idiosyncratic life history also enter in.

The parallels nevertheless remain arresting. Of culture as well as of personalities one can properly say. "This culture is in some respects like all other cultures, in other respects like some other cultures only, in a few respects completely individual." A personality can participate much more nearly in the whole of a culture than in the whole of a society. The fact that students of personality and students of culture have more in common than either have with students of societies as such is attested by some interesting contrasts in disciplinary affiliations

Superficially, sociologists and cultural anthropologists appear to be studying much the same things. Yet the American record shows more instances of cooperation and intellectual sympathy between sociologists and social psychologists than between anthropologists and sociologists, although sociology has borrowed extensively from anthropology both in data and concept. Anthropologists have more often been affiliated with students of personality (clinical psychologists, psychiatrists, and psychoanalysts) and have had deeper influence upon the thinking of these groups. Probably the fundamental difference is that social psychologists and contemporary American sociologists are more obsessed with the quantitative, and more ready to pull their data out of context, while the other two groups insist upon the relevance of form, of features of order and arrangement which are not (at least as yet) measurable. This statement does not, of course, hold for all American sociologists Those influenced markedly by the European tradition of Max Weber and Durkheim (e g, Parsons, Merton, Inkeles, and others) are by no means content to deal with fragmented aspects For them, a social system, like a culture, is defined by a set of *relationships* The contrasts, for instance, between the social systems of China and Japan are not arrived at by quantitative procedures But the majority of American sociologists, like the overwhelming majority of social psychologists, do worship the quantitative. There appears to be, currently, a trend in that direction among cultural anthropologists — presumably under the pressure of dominant American culture. It is also true, as Wallace (1952b) points out, that much contemporary American theory of culture and of personality-in-culture has explicit or implicit probability dimensions Wallace himself defines culture as

> . . . *those ways of behavior or techniques of solving problems which, being more frequently and more closely approximated than other ways, can be said to have a high probability of use by the individual members of a society.* (p. 750)

And he states the problem of cultural influences upon personality development in probability terms.

> . . . *the probability of any definable sequence of formative events is equal to the probability of the emergence of a given type of personality, and the total number of individuals possessing that type of personality will be the product of that probability and the size of the population.* (p. 749)

Many American anthropologists are working more closely with sociologists than ever before — and not exclusively with those sociologists who go in for pattern analysis. There are also, undoubtedly, factors of training, common problems, and experience — as well as membership in joint departments — that tend to draw the sociologists and anthropologists together. The study of culture and society link these two groups, as the study of motivation links psychologists of all sorts. The sheer fact that subjects and patients go to psychologists, whereas sociologists and anthropologists go to their communities and informants, probably makes for a sociology-anthropology, as opposed to an anthropology-psychology, alignment. Neverthe-

less, historically at least, anthropologists and clinical psychologists have shown more similarities in their basic "mental set"

The clinical psychologist tries to envisage the whole of a personality, just as the anthropologist attempts to get a picture of the whole of a culture. In both cases this entails, for the time being at least, some deficiency in workmanship as well as loss of rigor. The anthropologist cannot have enough specialized knowledge to describe music, basketry, and kinship with equal expertness. Nor can the psychologist be equally well trained in mental and projective tests, depth interviewing, and techniques of the personal document. Nevertheless, holistic, controlled impressionism has certain merits, at any rate for heuristic purposes, in this particular stage of the development of the human sciences

One may take as an extreme case the relationship between psychoanalysis and anthropology (cf. Chapter 4) For all of the extravagant dogmatism and *mystique* of much psychoanalytic writing, the anthropologist sensed that here at least he was getting what he had long been demanding in vain from academic psychology· a theory of raw human nature. The basic assumptions of the theory might turn out to be false in general or in detail The anthropologist was positive that the theory was culture-bound to an important degree, although the evidence of the past twenty years indicates that many anthropologists exaggerated the extent of the distortion produced by bourgeois Viennese culture and by late nineteenth-century science. In any event, psychoanalysis provided anthropology with a general theory of psychological process that was susceptible of cross-cultural testing by empirical means and with clues that might be investigated as to the psychological causes of cultural phenomena.

Moreover, there were experiential factors that drew the psychoanalysts and the anthropologists together. Psychiatrists of all persuasions were showing that there was meaning in the most apparently chaotic and nonadaptive acts of the mentally ill. This struck an answering chord for the anthropologist, for he was engaged in demonstrating the fact that the seemingly bizarre patterns of non-Western cultures performed the same basic functions as did our familiar customs The same amnesty that the psychoanalyst grants to incestuous dreams the anthropologist had learned to accede to strange customs. That is, both insisted that even "weird" behavior had significance in the economy of the individual or of the culture. There is also the circumstance that psychoanalysis developed and used a series of concepts (phantasy, libido, the unconscious, identification, projection) that applied specifically to human beings and which anthropologists found useful toward a better understanding of religion, art, and other symbolic phenomena The main concepts of learning theory (drive, response, cue, and reinforcement), on the other hand, applied to animals at least as much as to humans. This is a great advantage for comparative psychology, but is too limited a repertoire for the phenomena with which anthropologists have to deal

Finally, the dominant experience of cultural anthropologists had been as "unscientific" — in the narrow sense of that term — as that of the psychoanalysts. Both groups operate with procedures that are essentially "clinical" Ordinarily the anthropologist working under field conditions has as little chance to do controlled experiments as has the psychoanalyst who sees his patient for an hour a day in the consulting room. The skilled of both professions do make predictions of a crude order and test them by subsequent observation But these observations do not lend themselves to presentation in neat graphs nor to "t" tests. Indeed, both groups would maintain, without disparaging the indispensable importance of statistics for other purposes, that some of their main problems involve matters of form, position, and arrangement more than the incidence and clusterings of atomized variations. Probably in all culture, as well as in that aspect known as linguistics, the crucial issue is not that of size or frequency but of what point in what pattern One may compare the principle of the circle, which does not depend upon measurement as such but upon a fixed patterning, even though measurements are necessary to draw any particular circle to specification This particular pattern may be generalized in an equation, but the form of the circle can be recognized by those who are ignorant of the equation.

And so the anthropologist, however skeptical he may be of certain psychoanalytical dogmas, tends to feel in some measure at home in psychoanalytic psychology. He recognizes that there are certain similarities in the problems that confront him in describing and interpreting a culture and those met by a psychoanalyst in diagnosing a personality: the relationships between forms and meanings, between content and organization, between stability and change It must also be freely recognized that psychoanalysis and much of cultural anthropology suffer from some similar defects and limitations. While it is to be hoped that they will continue to resist complete surrender to whatever statisti-

cal and other mechanical techniques happen to be fashionable at the moment, both must give a little in this direction Chassan (1953) proposes a probability framework for psychoanalysis with particular attention to the problems of homogeneity of data, number of cases, and their relation to the problems of inference Mandelbaum (1953) takes issue with Mead's theory of anthropological sampling, making a good case for the view that anthropologists must also face up more squarely to sampling problems as worked out by other social scientists I think, nevertheless, that few psychologists understand some special considerations in anthropological methods as stated by Mead

> In dealing with culture, the anthropologist makes the same assumptions about the rest of culture that the linguist makes about the language — that he is dealing with a system which can be delineated by analysis of a small number of very highly specified samples (1953, p 655)

The anthropological use of informants is closer to the historian's use of *documents* than it is to the sociologist's use of respondents or the social psychologist's use of experimental *subjects* Each informant is evaluated individually against a wide knowledge (on the part of the interviewer) of the culture of the informant, the social structure of which the informant is a part, and the particular subject about which the informant is being interviewed Here the anthropological interviewer's skill parallels that which an historian, trained in a particular period, brings to the interpretation of the reliability and significance of a new document from the period in which he is a specialist. So, for example, it is possible to judge whether Informant Kom-3 is basing a statement about the Komsomol mainly on reports on — or experience of — a particular congress, to check statements from an informant in Rostov against a knowledge of movements and countermovements of the Russian and German armies through Rostov in World War II; to judge whether the vocabulary used by an elderly informant is congruent with the particular educational claims which he puts forward Furthermore, each interview or series of interviews with a single informant is studied as a whole, different statements are viewed contextually, in the sequence within which they occurred, and in connection with the affect displayed by the informant (using here the methods of interview evaluation developed within clinical psychology, psychiatry and psychiatric social work). Statements of opinion are placed within this depth context and are treated not as matters of fact, but as parts of a total response; so in this method there is no use for percentage statements, such as, "Twenty per cent of the informants said they never read the front page of *Pravda*," or "Fifteen percent claimed that the ritual creation of Stakhanovites was necessary," which would not be any more meaningful than the statement, "Of the surviving documents on the early history of New England, fifteen per cent said that Providence was good." Interviews are cross-compared for pattern and within the pattern apparently contrary factual statements are fitted together, such as "I never read the papers because it was all just what the regime wanted you to think," and "I read the papers very carefully to give me a clue to what was going to happen next, to be prepared" Both are statements about the informant's belief in the amount of control exercised over the press The contrasting statements about reading and not reading can in turn be related to the position, age, and personality of the two informants and to statements by other informants From such study, significant relationships between status — or type of involvement within the system — and dependence upon clues from the press, may or may not emerge If systematic interviewing of carefully selected groups within the Soviet Union were possible, the contrast betwen those who do and those who do not report reading the press could be investigated, and perhaps systematic relationships to age or sex or echelon or type of activity could be found. But we still would not know how this was related to whether people actually did or did not read the press, quite separate methods would be necessary to determine this But, as with the use of available historical documents on a period which is past, the reports of informants — whose availability has been determined, not by some ideal sampling process, but by a series of historical accidents often arbitrarily rather than systematically related to each other — cannot be used to make statistical statements Nor is the number of informants or the number of interviews with single informants of very much importance — subtracting any given informant or any given interview from the total would produce a change, not by diminishing the reliability or validity of the whole group, but by impoverishing in a specific way the fullness of the pattern which can be derived from the whole For example, because these statements could be examined *both* in the light of Dr Dinerstein's experience (during another piece of research) in examining procedures of the Soviet provincial press *and* in connection with a growing body of materials on how hearsay was believed insofar as it reflected wholeness of response, the statements of Informant #16 (EC) — a highly sophisticated student of communication — became an essential clue to an understanding of the way *feuilletons* were used to atomize accounts about corruption into small particular events occurring in widely scattered places and, thus, to reduce the impact of such news. But taken alone, this informant's discussion would have had an entirely different value, and could not have been coded into a series of statements of comparable value. Unless these methodological considerations are kept in

mind, there is danger that the approach will be misinterpreted

A brief discussion is also necessary as to the validity of the pattern delineation which is given here This has been validated against our available knowledge of Great Russian traditional behavior and contemporary Soviet behavior, as well as against systematic psychological theory Further validation could take the following forms collection of more interview material and its subjection to the same kind of analysis, observation — under some sort of controlled conditions — of a group of Soviet defectors, and the analysis of their behavior into categories which would make possible a comparison of the patterns derived These statements are statements about Soviet behavior, not about human behavior which is culturally unspecified The question arises whether the construction of experimental situations approximating conditions obtained in the Soviet Union, and the exposure of American experimental subjects to such conditions, would throw light upon the validity of the conclusions about Soviet behavior There is at present no body of theory on this question, but the following tentative suggestions may be made

When an American psychologist conceptualizes conditions in the Soviet Union as delineated by systematic anthropological work, these anthropological findings are retranslated into American terms in this process of conceptualization. For example, an experiment might be set up to show the effect on individuals of being lied to in two or three quite predictable ways — one type of lying (e g, the statement of the exact opposite) for one type of material, another type of lying (e g, an alternation of fact and falsehood, or a systematic alteration in scale, or a falsification of sequence or of time perspective) for another type of material, etc The responses of American subjects might then be studied Whether or not their responses conformed to those which had been found to be characteristic of the Soviet informants would not be definitive for the following reasons we do not know to what degree the totality of behavior of individuals who are members of one culture is reset when they are presented with a stimulus situation that is a *patterned* representation of another culture, and we do not know to what extent the construction of the situation which is meant to represent the Soviet situation at a more abstract level has or has not been transformed into an American situation. Another possibility is one in which the experimental psychologist would be able to operate at a tertiary level so that his American experimental situation would stand in the same relationship to American cultural behavior, in respect to the crucial variables, as a *different* experimental situation would stand to Russian cultural behavior The use of such a validating method requires a handling of cultural pattern which it is possible to prefigure, but for which we have at present no model — the closest model being probably in the field of structural linguistics (1952b, pp. 9-15)

In brief, the anthropological point of view prefers completeness of context to dismembered precision. It distrusts "similarities" that are taken from the investigator's point of view as independent, self-contained elements. Anthropologists believe that "elements" must be seen in the first instance without labeling in the terms of another culture and defined and classified by their position in the total field of which they are a part Parts are defined by the whole and also contribute to the definition of the whole Some anthropological theories have vacillated between statistical and mechanical models Since the study of cultures is the study of a certain kind of forms, it seems probable that formal models might be most appropriate These might require a new sort of mathematics, or, as Lévi-Strauss (1953, p. 328) suggests, a rigorous approach to problems which do not admit of a metrical solution may be possible on the basis of extended use of mathematical logic, set-theory, group-theory, and general topology. Alternatively, formal models for anthropology may more nearly take the general nature of models developed by recent linguistics As Jakobson and Lotz (1949, p. 210) say

> Where nature presents nothing but an indefinite number of contingent varieties, the intervention of culture extracts pairs of opposite terms

The fundamental oppositions in culture generally may turn out to be ternary or quaternary. But undoubtedly there is a relation of units in a determinate system (patterning), an interrelation of parts as dominated by the general character of wholes Jakobson has also indicated that language, though constructed around simple dichotomic oppositions, involves both an axis of successiveness and an axis of simultaneity which cuts across its hierarchical structure even up to symbols

Such problems of the interrelations of forms appear to be central at present not merely in the behavioral sciences but in science generally (Whyte, 1951). And as Whyte has written elsewhere

> The quantitative method was the final and most uncompromising product of dissociated thought, it symbolizes to the point of parody the specializing tendency of the European mind and its lack of integration. . . Because it was the only known heuristic method, the quantity principle was believed to be the only possible method Because nature had given her sanction to the method, the structure of nature was thought to be wholly quantitative. Aspects which were inaccessible to

measurement were treated as beyond the scope of positive science . Quantity, for all its efficacy as an instrument of research, contains no general principle of form, of order, or of organization

In the unitary view there is no scope for any arbitrariness of measured number, because the structure of nature is not quantitative, but man puts quantity into nature by applying the process of measurement. (1948, pp 133, 142, 281)

✓

Culture is not merely a "tissue of externalities " It is "built into" the personality and as such is part, though only part, of the personality. From many different private versions of a given aspect of a culture as manifested by so many different unique personalities, the anthropologist constructs the ideal type of that aspect which he, perfectly legitimately, incorporates in his conceptual model of the total culture Since culture influences the concrete act of the individual actor, it is not "impersonal" at all. Concretely, culture is internalized As Parsons (1953, p. 622) says, culture must be conceived *both* as institutionalized in social systems and as internalized in personality systems.

There is no genuine problem, however, as to the "inwardness" or "outwardness" of culture. It is "outward" as an abstraction, a logical construct (Culture_1) ; it is very much "inward" and affective as internalized in a particular individual (Culture_2). One must merely take care not to confuse these two frames of reference. It is highly convenient to construct an abstract conceptual model of a culture. But this does not mean that culture is a force like Newtonian gravity, "acting at a distance." Culture is a precipitate of history but, as internalized in concrete organisms, very much active in the present. One might almost say that a culture is to a society as memory is to a person. The past is present through memory and through the structuring of the present which previous events have produced.

Culture is manifested in and through personalities. Personality shapes and changes culture but is in turn shaped by culture. Culture exists to the extent to which the "private worlds" overlap. In a complex stratified and segmented society like our own these "private worlds" overlap for the majority of the total population only upon the broadest of issues. Generalized American culture has a differential impact upon diversely situated groups.

The exploration of the mutual interrelations between culture and psychology must continue. However, we may conclude with Stern (1949) that:

There has been considerable unrewarding controversy . around the contrast of culture as a thing in itself, and culture as an activity of persons participating in it. Actually both approaches are valid, and are required to supplement each other for a rounded understanding of cultural behavior (p 342)

Both culture and personality are inferential constructs that start (but select) from behavior or products of behavior. Symbolization (in a very broad sense) seems to be central to both models, and such symbolization is carried on at various levels of awareness and with varying degrees of compulsiveness. In the past, culture has tended to emphasize explicitness of both design and content, personality theory has emphasized implicitness and "internality." Now culture theory seems to be working "downward" toward the implicit and "internal," personality theory "upward" to explicit forms. Hence the two bodies of theory converge more and more but probably will not fuse completely It may be that a single conceptual model, based not upon summary reductionism but upon gradual coalescence, may be created which is usable both for that portion of psychology that deals with the individual interacting with his fellows and with that part of anthropology which deals with the approximations of individuals to cultural forms and with the growth and change of cultures insofar as these arise from individual variation.

However, some aspects of cultural process not only can, but can better, be studied in abstraction from cultural agents. Cultures are systems (that is, are organized) because the variables are interdependent. All systems appear to acquire certain properties that characterize the system *qua* system rather than the sum of isolable elements. Among these properties is that of directionality or "drift." There is a momentum quality to cultural systems. The performance of a culturally patterned activity appears to carry with it implications for its own change, which is by no means altogether random. Forms in general, as D'Arcy Thompson has shown, have momentum qualities The existence of "drift" in one aspect of culture (linguistics) has been fairly well established There is probably "cultural drift" in general. There may even be in some sense "cultural orthogenesis" within particular limited scopes; that is, the direction of at least some culture change is more predetermined by earlier forms of the culture than caused by environmental press and individual variability.

This is not to minimize the role of "accident" — the inability of our conceptual models to

predict the entry of significant new factors that influence the body of phenomena under consideration. Just as mutations bring to the gene pool of a population previously nonoperative elements, so invention, natural catastrophes, or optima, perhaps gene mutations toward unusually endowed or specialized individuals, alter the course of cultures. Nevertheless, in spite of all these "accidents," it is an empirical fact that there are significant freezings in the cultural process It is these which anthropologists can most easily study. Anthropology, like Darwin's work, has been largely a matter of looking at facts in terms of their consequences rather than in terms of their "causes" — in the meaning of classical mechanics The study of culture is the study of circular and interactive behavior. The prime anthropological problem is to find the right point of entrance in studying a circle.

Almost all behavior is selective But human behavior is selective in the special sense that there exist historically created and man-made standards of selectivity: conventional concepts that are communicated (whether by explicit verbalization or in other ways) within the group, culturally transmitted and culturally induced needs and wants. Men of different groups want their food or their sexual experience in particular ways or forms. The fact that both appetites and consummatory responses (cf. Tinbergen, 1951) are so modified is a property of universal culture. The *particular* manner is distinctive of cultures local in space or time. "Systematically modified human behavior" will almost do as a definition of culture What psychologists and anthropologists alike study directly is patterned behavior ($Culture_2$). Both professions in their analyses need to resort to the abstracted patterns of these behaviors ($Culture_1$)

Psychology is indispensably relevant to the understanding both of universal culture and of distinctive cultures The broad ground plan of all cultures arises out of the functional prerequisites of human society as such (Aberle *et al*, 1950). Culture patterns are, in large part, varying responses to these universal categories:

- Provision for biological needs
- Role differentiation
- Effective control of the use of force
- Communication
- Shared cognitive orientations
- Common articulated set of goals
- Normative regulation of means
- Regulation and production of affective expression
- Socialization

Nothing could be more evident than that psychology must help explicate these categories both in their generality and in their multitudinous culturally patterned modifications It is equally certain that anthropologists can help psychologists understand the cultural dimensions of motivation, learning, perception, cognition, and the rest.

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CHAPTER 26

National Character: The Study of Modal Personality and Sociocultural Systems

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During the last two decades a series of concepts such as "national character," "basic personality structure," and "social character" have come into increasing use in social science literature All of the relevant studies have to some extent been concerned with describing modal personality patterns in the populations of particular societies Since the study of personality is a central concern of psychology, it follows that the study of modal personality falls predominantly within the province of psychology. It is rather striking, therefore, that among the authors of the growing body of literature on modal personality members of the psychological profession are distinctly in the minority.

Anthropologists predominate among those actively engaged in the study of national character This is to be understood largely in the light of the internal development of anthropology as a discipline in the last three or four decades In the period preceding the 1920's, social anthropology was still largely concerned with outlining the main social norms of the societies investigated, norms which were generally seen as operating with unfailing power to compel all the individuals in any group to behave in the manner dictated by the cultural prescriptions of their society In the subsequently changed climate of opinion to which men like Rivers, Sapir, and Boas contributed heavily, anthropologists became increasingly aware of the individual in society, both as culture carrier and culture innovator Further, the growing interest in the study of deviant behavior led to greater recognition of the fact that it was only the *internalization* by the individual of the values of his culture, and his *learning* of appropriate behavior, which ensured the effective execution of the cultural imperatives. In time the individual personality came to be seen as an expression of his culture, and consequently as a source of data for the study of culture equal in importance to arts, rituals, ceremonies, and other traditional foci of anthropological investigation.

Until the mid-thirties, anthropologists continued to emphasize the description of the individual as such This was reflected in the substantial number of biographical studies that appeared (Kluckhohn, 1945). There was, however, little explicit use of systematic psychological theory, the standard procedure being to offer the individual's retrospective, life-long biography substantially as he spontaneously recited it On the whole, therefore, these descriptive studies were explicitly or implicitly focused on demonstrating the extent to which the individual reflected his culture's norms in his behavior and his conscious and near-conscious attitudes. Furthermore, insofar as anthropologists turned to psychology for theories to "test" or to use as guides for their new pattern of investigation, they turned almost exclusively to Freudian psychology (Kluckhohn, 1944)

An event of major significance occurred with the publication of Ruth Benedict's *Patterns of Culture* (1934), in which she gave fuller statement to important issues she had earlier discussed (1928, 1932) In that book Benedict went beyond the mere behavioral description of the individual as a product of his culture, to the characterization of the essential psychological coherence of the ethos of the culture as a whole. Benedict did not have a well-rounded and integrated conception of individual psychology, and she was neglectful of the developmental aspects of personality. Her emphasis, as characterized by Gorer (1950, p. 106), was rather on "the psychological coherence of the varied *institutions* which make up a society" Further, she did not make a clear conceptual distinction between the sociocultural system and the personality as a system, but rather appears to have assumed that the psychological coherence of the individual personality was isomorphic with the psychological coherence of the culture Nevertheless, Benedict's work served as a model and stimulus to other anthropologists who, more centrally concerned with the individual personality and utilizing more

fully developed psychological theory, later studied the relations of culture and personality

Tremendous impetus was given to this work by the advent of World War II and its aftermath, when a variety of anthropologists, psychiatrists, and others attempted explorations into the psychology of various national states, particularly the wartime enemies of the United States (Benedict, 1946a,b, Bateson, 1942a, Dicks, 1950, 1952, Gorer, 1943, 1948, 1949, "Germany ." 1945; La Barre, 1945, 1946, Leighton, 1945; Mead, 1942, 1947a, 1951a, Schaffner, 1948) As a result of this experience the study of national character has become firmly established as an area of anthropological interest

The picture was quite different in the realm of psychology Extraordinarily few psychologists have shown interest in the study of national character, and the attitude generally manifested toward the relevant work done in other disciplines has been predominantly cold if not hostile Here again some clue is to be found in an examination of the recent internal development of the discipline Until recently psychologists were concerned less with the influence of social factors in human psychology, than with the psychological substratum underlying social behavior. This was true of Freudian theory in the sense that Freud viewed human behavior largely in terms of a genetically given maturational cycle in which different biologically rooted drive systems emerged as central forces in determining behavior It held as well, although in a different sense, for the majority of academic experimental and animal psychologists who were concerned with learning, perception, and other psychological processes *per se*. That is, they were concerned with how the organism learns or perceives without regard to social content or setting, and largely without concern for individual or group differences Indeed a prime objective was "to control," which often meant, in effect, to rule out of consideration, social influences, in the search for universal principles governing individual behavior.

As for the social psychologists, who were concerned with man as a social product, much of their energy during the 1920's and early 1930's was concentrated on attacking generalizations about the psychology of groups. Such generalizations were associated with race theory and were opposed as being unscientific stereotypes involving wholesale projection of our values on other groups, or as rationalizations of our own social structure (Klineberg, 1935, 1940, Murphy *et al.*, 1937). Their emphasis was on the role of environment in shaping *individual* differences in behavior. Furthermore, the increasing insistence on rigorous method and experimental technique within social psychology made the complexities of modal personality studies appear too overwhelming to permit careful empirical research. This problem was intensified by the fact that most of the recent statements on national character revealed the strong influence of Freudian or neo-Freudian theory, indeed its virtual monopoly of the psychological aspects of the field. These factors, plus the seeming lack of a clear sense of rigorous empirical method in much of the writing on national character, discouraged most social psychologists from taking an active interest in its study

Since the late 1930's, however, several important new trends have emerged Personality theory and clinical methods have grown in importance and acceptance, and the social situation has been introduced into experimental work as a crucial variable These shifts contribute to forming a climate of opinion in which the study of modal personality patterns is recognized as a legitimate concern of psychologists. Furthermore, although it is predominantly a field of applied psychology in the present state of its development, the study of modal personality patterns has major possibilities for exerting a positive influence on general personality psychology.

Any attempt at critical review and evaluation of the work in this broad field must necessarily reflect the personal and professional predilections of its authors It is to be noted, therefore, that this paper in its treatment of specific topics represents the close collaboration of a sociologist and a psychologist, who acknowledge both the autonomy and the interdependence of the various social science disciplines. Whatever the disciplinary area to which it is assigned, the study of modal personality and its relations to the sociocultural order is of central importance to social science as a whole. Indeed, it might be argued that this is the problem *par excellence* for integrated social science research. Certainly this review would be more comprehensive, although perhaps more disjunctive, had we been joined by members of related disciplines — notably anthropology, history, economics, and political science.

We take the *common* data of all social science to be *socially relevant human behavior* as directly manifested by individuals and groups or as embodied in cultural artifacts and social institutions. The term "common data" is not to be taken to exclude the fact that any given social science discipline may legitimately be

concerned with major bodies of data *not shared* with the others. From the full range of socially relevant human behavior the various social sciences select and group their data according to different conceptual schemes and analytic constructs The central abstractions or analytic frameworks derived from observed behavior in psychology, anthropology, and sociology are, respectively, personality, culture, and social structure (Parsons and Shils, 1951). Personality is taken to be a property of individuals, culture of human groups, and social structure of institutions and societal systems For analytic purposes each of these is treated as a discrete conceptual entity, despite the fact that they are abstractions from much the same range of human behavior.

The broad field that deals with interrelations between "human nature" — i e , individual psychological characteristics and processes — and life in social groups, may be designated as the study of "personality and the sociocultural order" (Haring, 1948, Kluckhohn, Murray, and Schneider, 1953). Several foci of interest may be discerned within this broad problem area. The students of "culture and personality" have concentrated on the interrelations between personality and certain selected aspects of group life, in particular the group ethos, patterned life-ways or themes, designated as culture. Rephrased as the problem of "personality *in* culture" these studies have focused their attention on the individual, seeking to understand how life in a particular culture distinctively shapes the original human nature (Bateson, 1942b, 1944; Kluckhohn, 1949a, Kluckhohn and Mowrer, 1944, Lindesmith and Strauss, 1950; Linton, 1945, Sargent and Smith, 1949) Relatively less attention has been given to tracing the effects of personality modes on social structure and functioning, although some work has been done under the rubric "national character and social structure" (Ginsberg, 1942; Gorer, 1950, Klineberg, 1944, 1949, 1950, Leites, 1948, Mead, 1951b)

Our emphasis will to some extent overlap these, and to some extent be distinctive We shall be concerned with the impact of the sociocultural system on personality, and in addition with the functions of personality in the maintenance or change of culture and social structure More particularly, we shall focus on three main problem areas arising in the study of modal personality patterns: (1) the *delineation* of such modes, i e , what characteristics are investigated, and how their presence or absence is ascertained, (2) the *determinants* of modal personalities, and (3) their *role* in the sociocultural systems in which they are manifested Our illustrative material will be drawn primarily from modern industrial societies — in particular the United States, the Soviet Union, Germany, China, and Japan — but this is not meant to indicate concern only with modern large-scale social systems. For we take it that despite the greater complexity of the phenomena involved, the same general principles of analysis can be applied to both large- and small-scale societal systems (Aberle *et al* , 1950, Levy, 1952, Parsons, Bales, and Shils, 1953) Our particular use of large-scale social systems for illustrative purposes will be partly to compensate for the relative neglect of such systems and the special problems they pose, and partly to avoid duplication of material presented in Chapter 25, which treats a related problem from a different point of view.

Problems of Definition

Despite the considerable variety of theoretical approaches evident in the literature, there are relatively few formal definitions of national character and few discussions of the proper scope and limits of this field of study. This lack of explicitness has had the advantage — and one that should not be underestimated — of encouraging the expression of intuitive, clinical modes of thought and of permitting the free play of ideas so important in a new field of exploration However, it does not seem too early to survey the various explicit and implicit definitions and to seek a general definition of national character. We shall attempt to do this and, in the process, to delineate some of the major issues in this field.

One use of the term "national character" does not particularly link it with personality, but rather treats it as a particular way of looking at culture and the culturally patterned behavior of individuals Benedict (1946b, p 274), for example, stated that "to the anthropologist the study of national character is the study of learned cultural behavior," Mead (1951b, p. 81) at times treats national character in a very similar way, distinguishing as three variant approaches the comparative description of certain culture configurations, the "analysis of the relationship between the basic learnings of the child . . . and other aspects of the culture," and the study of the patterning in any culture of selected interpersonal relationships such as parent-child and peer-peer relations.

One may, of course, define national character

as a particular way of looking at the coherence of culturally defined values or behavior patterns However, beyond the task of studying the regularity with which certain values, themes, or patterned behavior sequences are expressed or manifested by the individuals participating in any culture, there remains the task of exploring the regularity with which certain *personality patterns* may be manifested by the members of particular societies. Further, to define national character as more or less synonymous with the sum of learned cultural behavior makes any effort to relate culture to character largely an effort to relate culture to itself (Inkeles, 1951). Our discussion is meant to apply only to studies that are concerned with national character as having reference to personality patterns Both Mead and, to a lesser degree, Benedict, used national character in this sense in addition to using the term to refer to the coherence of cultural elements. Therefore, insofar as their work has had reference to regularity in *personality* configurations within societal populations it has been included in our survey.

Perhaps the main thread running through the numerous definitions is that national character refers to characteristics that are *common* or standardized in a given society. This aspect of commonality or frequency is most directly represented in Linton's (1945, 1949) conception of national character as *modal* personality structure In using the statistical concept of mode he takes account of the fact that there are actually a great variety of individual personality characteristics and patternings in any society, a modal personality structure is then merely one that appears with considerable frequency There may, of course, be several modes in any distribution of variants — a point to which we shall return in due course.

However, frequency is not the only defining criterion that has been used, although there is less agreement concerning other criteria. For example, the term "basic personality structure" is used by Kardiner (1939, 1945a,b) the psychoanalyst whose collaboration with Linton provided one of the early prototypes of the joining of psychological and anthropological theory and technique The term "basic" in this connection refers to the sociocultural matrix rather than to that which is "deepest" in the person. The basic personality must be common or modal in the society, and is psychologically central in the sense that it is a generic feature on which diverse behavioral manifestations may be based. But most important, it is conceived as that personality structure which is most *congenial* to the prevailing institutions and ethos of the society (Linton, 1949, and in Kardiner, 1939) In other words, the basic personality structure consists of those dispositions, conceptions, modes of relating to others, and the like, that make the individual maximally receptive to cultural ways and ideologies, and that enable him to achieve adequate gratification and security within the existing order.

Fromm (1941) takes a similar approach in his concept of "social character," although his general theory differs considerably from Kardiner's He initially defines social character as "the nucleus of the character structure which is shared by most members of the same culture" (1949, p. 4). This definition, emphasizing as it does the aspect of "sharedness," would seem to make frequency or modality the defining criterion. However, as happens so often in this field, Fromm's discussion and application of his central concept implies a definition quite different from the original explicit one He states that the primary criterion of social character is not its frequency but rather its *requiredness* by the social organization. In other words, the social character consists of those characteristics which lead people to conform, to "want to act as they have to act" (1949, p. 5) in the existing social milieu. For example, an industrial society with its ever-increasing mechanization and bureaucratization of the occupational system, *requires* personality traits such as discipline, orderliness, and punctuality on a large scale if it is to function effectively.

The position of Linton and particularly of Fromm implies a distinction between (a) the "socially required" or socially congenial personality structures — those that can function optimally in a given setting — and (b) the actual, modal personality structures that in fact are to be found in the members of the society Clearly, a disparity often exists between (a) and (b), particularly in a modern industrial society whose institutional structures are likely to change more rapidly than, or in a different direction from, its modal personality structures. This distinction is therefore of special importance for both the definition and the empirical study of national character.

In our opinion, "national character" ought to be equated with modal personality structure; that is, it should refer to the mode or modes of the distribution of personality variants within a given society. "Societal requiredness" or "congeniality with the culture pattern" should not be part of the *definition* of national character. The *socially required* personality (for example, the personalities best suited to a

bureaucratic or an assertive-individualistic social structure) deserves the status of an independent though significantly related construct. Given this distinction, the degree of congruence between the modal personality structures and the psychological requirements of the social milieu emerges as an important problem for research.

This point has an important methodological implication If national character refers to modes of a distribution of individual personality variants, then its study would seem to require the psychological investigation of adequately large and representative samples of persons, *studied individually.* However, most assessments of national character have not proceeded along these lines. They have, rather, been based largely on the analysis of *collective policies and products* — rituals, institutional structures, folklore, media of mass communication, and the like. Psychological analysis of these phenomena can contribute significantly to the over-all psychological characterization of a society (Bateson, 1943; Bateson and Mead, 1942, Erikson, 1942; Wolfenstein and Leites, 1950, etc) Indeed, systematic analysis of the immanent psychological characteristics of collective enterprises and their products is becoming an increasingly significant aspect of social science research. In the national character field, however, this should be a supplementary rather than a primary method — the primary one being the large-scale study of individuals. This and related methodological points will be pursued further in a later section.

An important additional feature of the general definition of national character is that its components, whatever their specific nature, are *relatively enduring personality characteristics,* e.g., character traits, modes of dealing with impulses and affects, conceptions of self, and the like. These are not phenotypic, behavior-descriptive terms, but rather are higher level abstractions that refer to stable, generalized dispositions or modes of functioning and may take a great variety of concrete behavioral forms They can be inferred from behavior (preferably under conditions that maximize the possibilities of at least crude but dependable measurement) and are conceived as comprising only one of several sets of factors that determine action. Other sets of determinants include the sociocultural framework, immediate situational demands and opportunities, the individual's changing skills, interests, and moods, and so on.

It follows from this conception that national character cannot be *equated* with societal regularities of behavior (habits, customs, folkways, etc) A given behavioral regularity may or may not reflect personal characteristics that are enduring in each individual and common to all individuals who show it. Conversely, behaviors that are superficially different may express a single underlying disposition. We must therefore progress beyond the cataloging of behavior items to the psychological analysis of behavior. Since one of the main analytic functions of the concept of national character is to enable us to determine the role of psychological forces in societal patterning and change, it must be defined conceptually as a *determinant* of behavior rather than concretely as a *form* of behavior And it must have some stability or resistance to change, for characteristics that change easily under everyday situational pressures can hardly be of major importance as determinants of either social stability or organized social change Indeed, the contemporary formulation of national character as a field of study is based on the conception of personality as a relatively enduring and organized system of dispositions and modes of functioning in the individual. Given this definition, we are then faced with the empirical problems of determining whether modal personalities exist in modern national states, and, if they do, of delineating their manifold determinants, their historical stability, and their role in the collective national life.

(It should also be noted that "national character" refers primarily to commonalities in *adult* personality) The focusing on adult personality is determined by the two chief theoretical questions in this field (1) What is the role of modal personality trends in establishing, maintaining, and changing collective behavioral-ideological structures? (2) What is the role of sociocultural forces in producing and changing modal personality trends? The first question is concerned almost entirely with adults, i.e., with those who participate responsibly in the societal institutions and who determine collective policy. In the second question, modal adult personality is the dependent variable, the phenomenon to be understood. However, answering the second question requires starting with infancy and studying development through all *pre-adult* age levels.

It is, of course, true that psychological development does not end with the attainment of adulthood and that socially relevant changes in modal personality from youth to old age merit more attention than they have yet received either in the national character field or in developmental psychology. For the point under discussion here, however, the childhood-

adulthood distinction is the key issue. The aim of developmental study is to determine the role of relatively standardized child-rearing procedures and settings (including both the family and significant extrafamilial influences) in producing personality regularities in the growing children. The modes of childhood personality are important, from the national character point of view, only to the extent that they limit the varieties (modes) of adult personality that the children can develop.

A further word is in order concerning the concept of "mode" and the question of the degree of psychological uniformity to be found within any society. Many of the early and even recent writings on national character have attributed remarkable uniformities of psychological makeup to complex national and ethnic groupings, e.g., nineteenth-century "race theory," Le Bon (1899) on the natives in French colonies, Brickner (1943) and others on Germany. Such sweeping generalizations, particularly when they are based on very limited and uncontrolled observations, tend to be regarded with good reason as reflecting mainly the stereotypes and personal motives of their proponents (Hertz, 1944). The assumption of a relatively high degree of psychological uniformity is also often made, although in a more explicit and cautious manner, in ethnographic studies of nonliterate societies More specifically, it is often assumed that the distribution of personality variants in a given society is strongly *unimodal* — that there is a single prevailing personality pattern, and perhaps a few secondary modes representing unusual and "deviant" types. The data are at present inadequate for the testing of this assumption, though it would appear that the degree of intrasocietal variability is greater than the norm-centered descriptions of culture ordinarily suggest.

It should be emphasized, however, that our general definition of national character does not imply a heavily unimodal distribution of personality characteristics. National character can be said to exist to the extent that modal personality traits and syndromes are found. How many modes there are is an important empirical and theoretical matter, but one that is not relevant to the definition of national character. Particularly in the case of the complex industrial nation, a *multimodal* conception of national character would seem to be theoretically the most meaningful as well as empirically the most realistic. It appears unlikely that any specific personality characteristic, or any character type, will be found in as much as 60-70 percent of any modern national population. However, it is still a reasonable hypothesis that a nation may be characterized in terms of a limited number of modes, say five or six, some of which apply to perhaps 10-15 percent, others to perhaps 30 percent of the total population. Such a conception of national character can accommodate the subcultural variations in socioeconomic class, geosocial region, ethnic group, and the like, which appear to exist in all modern nations (cf Florence Kluckhohn, 1950, and Linton, 1949, on "status personality"; Kardiner and Ovesey, 1951, and Dai, 1948, on Negroes, Devereux, 1951, on "areal" vs "tribal" personality, Davis, 1941; Davis and Havighurst, 1946, and Ruesch, 1948, on class, Roe, 1947, on occupation; etc)

Apart from its probable greater empirical validity, the pluralistic (multimodal) notion of national character has several theoretical advantages By explicitly raising the issue of the number of modes present in a given society, it tends somewhat to counteract the inclination toward stereotyping and spurious homogenizing in our descriptions of national populations. It reminds us that our characterizations of societies refer to clusterings drawn from a distribution whose variability needs also to be noted The formulation in terms of a plurality of modes provides a more adequate psychological basis for understanding the internal dynamics of the society, e g., political cleavages, shifts in educational, industrial, or foreign policy, conflicting elites in various institutional structures, and so on. Furthermore, this approach is not primarily concerned with the psychological *uniqueness* of a given society, its first concern is, rather, to characterize the national population in terms which are psychologically important and socioculturally relevant. It will not be surprising, accordingly, if some or all of the observed characteristics and patternings are also found in other nations. In short, the study of national character may ultimately contribute to our understanding both of what is distinctive in single nations and of what is relatively universal in human society.

One final consideration concerns the distinction between matters of definition and matters of empirical demonstration. In our present limited state of knowledge and research technology, it cannot be assumed that any nation "has" a national character. At the same time, this assumption is often so attractive, and its expected usefulness in dealing with urgent problems (e g , problems of wartime policy or of peacetime collaboration between culturally very different nations) is so great, that social scientists are often persuaded to investigate the

role of national character in, say, national policy, before the *existence* of a national character has been demonstrated. Strictly speaking, the first empirical problem is to determine what modes of personality, if any, are present in a given society Before this can be done adequately, however, we must define at least in a general way the conception of national character that is to guide our investigative efforts

Thus, we have suggested that "national character" refers to *relatively enduring personality characteristics and patterns that are modal among the adult members of the society.* This is a purely definitional statement, not an empirical one It describes a hypothetical entity that may or may not exist. If modal personality structures cannot be found in modern nations, then the term "national character," at least as it is currently defined, will acquire the status of an empirically useless concept. In short, we are now only in the process of determining whether national character constitutes a genuine field of study However, even this phase has value. If it is shown that national character does not exist, social science will have dealt a severe blow against popular stereotypes and ethnocentric thinking about nations, and if modal personality structures are found, the way will be opened for the development of new insights into the relations between individual and society

Personality Theory and the Delineation of Modal Personality Structures

The first task in the empirical study of national character is, as we have already indicated, to describe the modal, adult personality structures (if any) within the given society Each modal structure is to be described in terms of its *contemporaneous* characteristics and their organization. This task should be distinguished from that of *developmental* analysis, which is concerned with the genetic sequence leading to the present personality and with the manifold determinants of that sequence. It should be noted, however, that although these two problems are analytically separable, some knowledge of a person's development may be necessary for the assessment of his present — particularly his more unconscious — characteristics (Hartmann and Kris, 1945). Developmental problems in national character research will be discussed in a later section

The investigator's personality theory, explicit as well as implicit, contemporaneous or developmental in emphasis, will heavily influence the nature and adequacy of his descriptions of adult modal personality. Ideally, the personality theory used in this field should have certain basic characteristics Its assumptions and concepts should comprise an explicitly formulated, coherent whole It should largely determine the empirical description and analysis of modal personalities; that is, it should generate a relatively standardized analytic scheme — a descriptive-interpretive language — in terms of which modal personalities can be delineated. The variables in the analytic scheme should be *psychologically significant,* in the sense that they represent intrapersonal characteristics that play an important part in determining the individual's thought and behavior, and *socially relevant,* in the sense that they influence the individual's readiness to maintain or change the existing sociocultural system. The analytic scheme should be comprehensive and universally applicable, so as to ensure maximal richness in the analysis of the single society and maximal cross-societal comparability of findings, thus permitting similarities and differences in national character to be comprehended

It is evident at the outset that "individual psychology" does not yet provide personality theories that meet the above criteria to a satisfactory degree This lack has been one of several major hindrances to the systematic description of modal personality structures, and must be kept in mind in any critical appraisal of the work to date At the same time, there has been frequent neglect or misuse of available personality theory by investigators in this field. Let us consider some of the major viewpoints and their empirical application.

Role of Psychoanalytic Theory

Psychoanalysis has played a crucial but somewhat paradoxical role in the study of national character As Kluckhohn (1944) has noted, no other conception of personality has had a comparable impact on social scientists, and Mead (1940, 1951b) has particularly stressed its importance for the development of the study of culture and personality and national character. Psychoanalysis provided a conception of human nature and human development that had the possibility of universal application in all societies. Psychoanalytic ideas about identification, introjection, and the unconscious operation of moral judgment have greatly influenced the social scientific study of values and social norms (Kluckhohn, 1951; Mead,

1949, Parsons and Shils, 1951). The theory of the unconscious, of the multiplicity of motives and meanings to be found in any human activity, has led to a change in the orientation of empirical research. Increasingly, in social science as in academic psychology, concrete behavior descriptions are being supplemented by more interpretive analyses which take psychological meanings into account

However, a number of limitations in early (pre-1930) psychoanalytic theory have complicated its convergence with sociocultural theory. Psychoanalysts have long recognized that the social environment is of decisive importance in personality development, and that ego and superego formation are based on the interplay between environmental forces and the unfolding maturational potentials of the organism (Freud, 1936, Fenichel, 1945). Nevertheless, relatively little has been done within the mainstream of psychoanalysis to *conceptualize* the environmental forces and the person-environment interaction Conceptually, psychoanalysis has tended until recently to remain relatively "encapsulated" within the individual, to focus on instinctual-unconscious processes, and to neglect the cognitive-conative processes that play an important part in social adaptation (Brunswik, 1952, Else Frenkel-Brunswik, 1940, 1942, Anna Freud, 1946, Hartmann, Kris, Loewenstein, and others in *Psychoanalytic Study of the Child*, 1945-52, Reich, 1945). During roughly the past fifteen years the recognition of these and related difficulties has led to new developments within psychoanalysis, notably the increased concern with ego processes and social forces and the emergence of various "neo-Freudian" viewpoints

The recent developments in psychoanalytic theory can be considered here only as they are reflected in the national character literature. (For another brief discussion, see Chapter 4) Our starting point is that psychoanalysis as of, say, 1935, was regarded as a major but incomplete theoretical basis for the study of national character. Accordingly, although it has been a seminal *influence,* a primary source of concepts and hypotheses, it has seldom been taken over intact as a *systematic theoretical position* in this field. For the most part, each investigator has been theoretically "on his own," taking an approach in which traditional psychoanalytic theory is modified, fractionated, or blended with a variety of other viewpoints. This theoretical atmosphere, if somewhat confusing, has had the value of inducing great conceptual ferment and cross-disciplinary exchange.

However, the reaction to Freudian theory has, in general, been more critical than constructive There have been few attempts to formulate a systematic personality theory and few discussions, at a general theoretical level, of the psychological issues that should be covered in a comprehensive analysis of national character. In general, the use of personality theory has been implicit and, so to say, casual. Linton, for example, defines personality as "the organized aggregate of psychological processes and states pertaining to the individual" (1945, p 84) He suggests that it would be "wise" to remain vague about the specific nature of the processes and states. Finally, utilizing a mixture of functionalism and habit theory, he arrives at the concept of *value-attitude systems* as perhaps the most useful one for the description of individual and modal personality He indicates in only the most general way the nature and operation of these systems, and does not clearly differentiate between "personality" and "culture," both of which are characterized in value-attitude terms.

For Gorer (1950), "national character" refers to common, individual personality structures. These are comprised, according to one definition (p 109), of "motives," and according to another (p. 120) of "the structuring and combination of traits or motives." However, Gorer has not concerned himself with the definition and conceptual status of these terms Although the concept of *structure* is crucial in his strictures on proper theory, he does not present a theory of the nature, organization, and functional interaction of motives and traits Moreover, he has drawn most heavily on Hull's learning theory, in which the concept of personality structure is lacking (see Chapter 2). He combines this learning theory with a simplified Freudian theory of psychosexual stages, but has made relatively little use of Freudian or other theories of adult personality *structure*. For these and other reasons, his analyses ordinarily have a somewhat segmented quality. Thus, in his study of Japan (1943), he relates a given adult personality characteristic, e g, anxiety over uncleanness," to a specific feature of childhood, "anal training," and to certain behavioral expressions, but he says relatively little about its role within the contemporaneous adult personality.

That psychoanalytic theory has assumed an increasingly important place in the work of Margaret Mead is readily apparent if one compares, for example, her earlier formulations regarding sex roles (1939) with her later ones (1949). Her approach, however, is primarily *psychocultural*. She has developed a strongly

psychological conception of cultural patterning, but has shown relatively little explicit concern with individual personality theory or with modal personality structure as such Her orientation toward characterizing the collective rather than modal-individual patterning is expressed in, and supported by, her predominant use of institutional practices, rituals, and documents as materials for societal analysis, and by her relative neglect of individual personality analyses This is due in part to the fact that Mead has recently been studying cultures which she was obliged to view "from a distance" In her earlier studies of the South Seas (1939), data on intelligence and other individual characteristics were obtained, however, individual personality configurations were described only incidentally and for illustrative purposes, e g, to point up certain forms of deviance And in the case of more recent work such as the Bali study (Bateson and Mead, 1942) where field work was done, or the Russian study (1951a) where informants were used on a large scale, the absence of individual personality analyses is notable

Erikson's observation about his own analysis of the Sioux and Yurok (1950, p 159) applies equally well to most of Mead's analyses " . in describing conceptual and behavioral configurations in the Yurok and in the Sioux world, we have not attempted to establish their respective 'basic character structures.' Rather, we have concentrated on the configurations with which these two tribes try to synthesize their concepts and their ideals in a coherent design for living" Erikson thus suggests, correctly in our view, that psychocultural analysis be clearly distinguished from, though functionally related to, modal personality analysis. Although there is no reason to assume that she would reject the distinction, it is apparently not explicitly acknowledged by Mead and certainly is deemphasized in her research reports. Thus, her recent studies, particularly those of Bali (Bateson and Mead, 1942), the United States (1940, 1942), and Russia (1951a), contain a wealth of characterological inferences, but these inferences are not brought together into a systematic formulation of national character in other than predominantly cultural terms.

The socially oriented clinical psychoanalysts have been somewhat more systematic in their attempts to develop a conception of personality and to apply it in the delineation of national character However, in this group of investigators the level of formal theory is also far from adequate. Róheim (1943b, 1947), one of the few "orthodox" Freudians in this field, has been concerned mainly with such problems as the universality of the Oedipus complex and the role played in the maintenance of culture by persisting unconscious processes derived from traumata in early psychosexual development His emphasis on "depth" aspects of personality provides a needed corrective for the more superficial approaches so often taken. But his work gives evidence of the weaknesses in earlier psychoanalytic theory already alluded to, particularly the conceptual neglect of peripheral personality processes and of sociocultural forces

Dicks and Erikson have remained within the general framework of psychoanalytic theory concerning psychosexual development, adult personality structure, the dynamics of anxiety, and the role of unconscious wishes and conceptions in individual and collective behavior However, both have taken greater than usual conceptual account of cognitive-conative ego processes and of the sociocultural setting They take the ego as a starting point for psychological analysis, considering it in relation both to underlying instinctual-moral processes and to the structure of the social environment In a sense, they may be said to have changed the older psychoanalytic approach, "the instincts and their vicissitudes," into a new form, "the ego and its instinctual substratum" Erikson (1950) places great theoretical emphasis on the ego's synthesizing function in developing stable conceptions — meanings, images, themes — of self, significant other individuals, and symbolic entities such as "boss" and "Mom" in contemporary United States His concept of ego identity and his theory of stages in ego development have considerable promise for the delineation of national character. Although Dicks has written less in the way of general personality theory, his descriptions of German (1950) and Russian (1952) character reflect a similar conception of personality

Fromm and Kardiner represent two variants of "neo-Freudian" psychoanalytic viewpoint. The writings of both men during the thirties were of great importance in linking psychoanalysis with social science and in establishing the outlines of the contemporary approach to national character Fromm (1936, 1941, 1947) rejects the Freudian theory of sexual and aggressive instincts and of psychosexual maturation, and has become progressively more ego-centered and characterological. His descriptions deal mainly with character traits, generalized "orientations" such as "receptive" or "marketing," and two types of conscience, authoritarian vs. humanistic. He rejects libido theory and proposes "self-realization" as the primary, matura-

tionally given urge or instinct in human development At the same time, Fromm continues to regard himself as being within the psychoanalytic tradition and in practice utilizes many Freudian motivational-developmental concepts.

Kardiner (1939, 1945a) also rejects classical libido theory and takes a heavily ego-centered approach. One of his chief concepts is the "individual security system," that is, the modes of adapting through which the individual gains group approval and support. This concept is used as a means of linking intrapersonal needs and societal demands. Kardiner, like Fromm, retains many Freudian concepts in slightly, and often implicitly, modified form Thus, although he rejects the Freudian theory of psychosexual development, he speaks of "oral" and "anal" adult character types and seeks their origins in corresponding periods of childhood development. The conceptual status of these presumably de-instinctivized terms remains unclear. Again, Kardiner in his formal definition (1939) proposes that the basic personality structure has four components idea constellations, individual security system, superego formation, and attitudes toward supernatural beings. These components are certainly deserving of serious consideration in the development of a conceptual framework for the delineation of personality, but they are hardly sufficient in themselves Further, they do not fully determine the organization and content of Kardiner's own analyses, nor do they exhaust the list of concepts which he in fact uses.

What is common to the various psychoanalytic approaches is the conception of personality as a relatively stable system organized along a peripheral-central "depth" dimension. The functional importance of any single characteristic depends on its place within the over-all system. At the periphery are the more conscious wishes, beliefs, and values, and the "traits" or readily apparent modes of adaptive functioning. At various deeper levels are the ego-defensive and ego-integrative processes, as well as the less conscious drives, conflicts, and conceptions of self and others, and those more archaic forms of psychic functioning which have not been outgrown. These are placed by psychoanalysis within a conceptual framework of dynamic systems (ego, superego, id) and structural regions (conscious, preconscious, unconscious), each of which has its own content, functional properties, and role relative to the personality as a total system The "neo-Freudian" viewpoints have modified this framework, usually in the direction of simplification and deformalization of intrapersonal analysis, but with greater stress on interpersonal processes

ROLE OF LEARNING THEORY

Beyond psychoanalytic theory, the only major psychological orientation widely manifested in national character studies is what may loosely be termed "learning theory." This designation must, however, serve to cover a variety of approaches, sometimes explicitly stated but as often only implicitly held. In particular, it must be recognized that the psychological theories placed by us in this group are in many cases not particularly regarded by those who use them as being "personality" theory in the same sense that psychoanalytic theory is personality theory.

One of the most important early introductions of learning theory into anthropological research was made by Whiting (1941), whose later work is just becoming available (Whiting and Child, 1953, and Chapter 18 this volume) and may be expected to have considerable bearing on national character studies when applied in that field. Among those usually regarded as working on national character, Gorer (1950) gives perhaps the most explicit acknowledgment of his debt to learning theory, in particular to that of Hull and his associates. He conceives of adult behavior as being generally "motivated by learned (derived, secondary) drives or wishes superimposed upon the primary biological drives" (1943, pp 107-108) Many of these wishes, Gorer goes on to say, are unverbalized or unconscious, since they become established following a pattern of *reward and punishment* experiences which occurred in childhood Nevertheless, such motives and other *learned habits* are seen as uniquely combined, structured, or patterned in the national character of any societal population It is not clear from Gorer's material, however, whether the pattern is expected to be present in *individuals* with sufficient frequency to constitute a mode, or whether it is sufficient that each discrete trait which the analyst sees as a part of the pattern be modally present in the total population

A similar emphasis on the description of personality as the end product of "learning," "training," and "conditioning" is to be found in Gillin's (1948) approach to modal personality structures. In Gillin's terms, the culture provides "a series of patterned stimulus situations." To these stimuli the culture seeks to elicit specific responses defined as appropriate, and such appropriate responses are then established as *habits* in the individual by "a constant drumfire" of rewards and punishments. The

individual then is conceived of as incorporating "a system of tensions, inhibitions, and acquired drives or motivations," and the sharing of this system then gives rise to a national character or basic personality structure Bateson (1942b, 1944, Ruesch and Bateson, 1951) has suggested that personality be described in terms of "contexts of learning" which involve interaction sequences such as dominance-submission and succoring-dependence. His formulation of these sequences also has the definite mark of stimulus-response theory. Thus for Bateson, national character may be described in terms of the distinctive combination or the predominance of one or another of these "linkages" or interaction sequences in the modal response pattern of individuals from any given society

It is apparent, then, that various forms of "conditioned-response" learning theory have been used in the analysis of national character. These viewpoints describe the individual largely in terms of certain habits and motives, or *predispositions* to respond to given culturally patterned stimuli in a culturally patterned way These predispositions are assumed to have been *learned* in a matrix of reward and punishment and the appropriate responses *reinforced* by the consistent patterning of the individual's later cultural experience Although the learned responses are therefore presumably subject to later extinction, as well as reinforcement, little is said on the matter Most characterological descriptions couched in learning theory terms do not present the contemporaneous traits of the adult individual, but rather characterize him by indicating the kind of childhood training experiences he has undergone. Furthermore, for lack of a fully elaborated descriptive vocabulary, the discussions of modal personality couched in the language of learning theory tend to be thin on explicit content, and the terms used are chosen on a relatively *ad hoc* basis. Finally, it should be noted that these descriptions give relatively little attention to the *structure* of personality.

CONTRIBUTION OF HOLISTIC THEORIES

Our discussion of psychological theory in national character research should make mention of both Gestalt and field theory, although neither has exerted very extensive influence. As we noted earlier, Benedict's foremost concern was with the characterization of cultures in terms of their values rather than with individuals or personality modes. She spoke of cultures in psychiatric terms, such as paranoid, primarily to facilitate communication of her estimate of the essential ethos of those cultures as a whole. To some extent, of course, she did apply her characterization of the culture she dealt with to the personality of its members. In that regard, her emphasis on the total coherence of the culture as expressed through the individual has a significant congruence with the approach of Gestalt psychology, which Bateson (in Sargent and Smith, 1949, pp. 140-141) has also used.

As for field theory, its direct application to national character study is apparently limited to Kurt Lewin (1948), although the importance of this approach to the subject has been emphasized by Murphy (1949) In his discussion of Americans and Germans, Lewin utilized his space and distance concepts largely to characterize behavioral and attitudinal differences, but he did make some exceedingly stimulating forays in the direction of a *structural* description of *personality* in the same terms. Unfortunately, however, Lewin's application of the approach was limited, and it has not been particularly utilized in national character studies by others

In summarizing the role of psychological theory in national character research we may state that only learning theory and psychoanalytic theory have played a major role Insofar as investigators have been concerned with *personality* theory, they have turned chiefly to psychoanalysis as a source of ideas However, only a minority have used psychoanalysis as a relatively integrated conceptual framework In addition to the clinical psychoanalysts mentioned above, this group includes Devereux (1951), Du Bois (1944), La Barre (1945, 1946), and Levy (1948), among others In general, social scientists have tended increasingly to consider the psychological aspects of sociocultural patterning They have shown less concern, however, with developing a conception of human (individual and modal) personality that might be helpful in understanding how the sociocultural order exerts influence upon, and is influenced by, the modal presence of certain patterned individual psyches.

EMPIRICAL DELINEATION OF MODAL PERSONALITY

We turn now from personality theory as such to the empirical description of modal adult personality As one would expect, the inadequacies of formal theory are reflected in the empirical studies. One of the most general problems is the failure to view modal personality as analytically distinct from other aspects of psychosocial analysis. Ordinarily, a society is described and analyzed chiefly in sociocultural terms, that is,

in terms of the normative patterning of beliefs, values, institutional practices, and interpersonal relationships, as these are observed in various spheres of collective life such as religion, the occupational structure, etc As Kluckhohn (1951) and Mead (1951b) have shown in recent surveys, anthropologists are coming increasingly in their descriptions of cultural patterning to use concepts also used in psychology. Note, for example, the concepts of "value-orientation" (Florence Kluckhohn, 1950), "implicit culture" (C Kluckhohn, 1949b), "end linkages" (Bateson, 1942), and "themes" (Bateson and Mead, 1942, Opler, 1945 and 1946). However, these concepts refer to patterning in the culture rather than in the individual personality There are relatively few studies in which the *primary* concern is with modal personality its nature, its determinants, and its consequences

A further consequence of the limited use of personality theory is that many descriptions of national character are superficial and incomplete. Goldfrank (1945), for example, describes Pueblo Indian personality primarily in terms of gross behavioral traits such as "fearful" and "argumentative," without regard for personal meanings and more central cognitive-motivational characteristics. The descriptions of Benedict (1934, 1946a) and numerous others also remain at a relatively concrete behavioral level, and cast little light on the more enduring intrapersonal processes involved Hallowell's (1940) analysis of the Salteaux Indians illustrates the effects of taking a more psychological approach. In his initial study, he had observed that the Salteaux are unaggressive and cooperative in their everyday social behavior, and had concluded that they simply lack aggression as a psychological disposition. In his second formulation, undertaken with greater knowledge of psychodynamic theory, his observations were more sensitive and his analysis more complete. It became apparent that aggression is an important but morally conflictful disposition, and that it is expressed overtly but indirectly in the form of suspiciousness, extreme concern with sorcery, and the like.

Riesman (1950) discusses various aspects of the contemporary American scene in terms of a distinction between "tradition-directed," "inner-directed," and "other-directed" moral characters. He indicates some of the psychological characteristics of each type, e.g., the other-directed individuals are concerned primarily with gaining the approval of others, their values shift easily in conformity with prevailing peer-group standards, and they respond to group sanctions with diffuse anxiety rather than shame or guilt. However, Riesman is more concerned with describing the presumed manifestations of the three forms of "directedness" in various institutional spheres than with formulating the primary personality variables comprising each constellation. In short, although we are given numerous psychologically acute observations about American social behavior, we do not have an adequate analysis of the personality structures that in part determine this behavior

One of the major problems in the empirical study of national character is the lack of an explicit, standardized analytic scheme, that is, a universally applicable system of concepts and descriptive variables in terms of which modal adult personality structures can be described and compared. Even the more systematic approaches, which have achieved a broad conceptual framework, are relatively limited at the level of descriptive variables or categories. This is particularly true of the psychoanalytic viewpoint. It should be noted that the lack of a standard analytic scheme is due not only to inadequacies of general personality theory, but also to the *clinical-idiosyncratic* mode of analysis commonly used. Most investigators in this field do not wish to decide, before embarking on a study, what categories are to be measured. The analyst prefers, rather, to immerse himself in the culture by means of reading, talking with informants, and using whatever forms of direct observation and experience are available. The final analysis is guided by an over-all conception of personality, but the organization and the language of analysis vary greatly from one society to the next, in accord with the idiosyncratic patternings that are found in each.

This mode of analysis has much to commend it, particularly in the initial development of an area of investigation when both theory and sheer information are so limited Indeed, no other approach has thus far contributed so significantly to our understanding of national character. Nevertheless, the lack of a standardized analytic scheme creates a number of problems. For one thing, it means there is no rigorous test for the occurrence of omissions and distortions of analysis If certain characteristics are not mentioned in the analysis, it is not clear whether they are absent in the modal personality, or are judged to be present but unimportant, or are present but have been neglected by the analyst.

Perhaps most important from a theoretical viewpoint, however, is the fact that the idiosyncratic description of each modal personality strongly limits intersocietal comparison and cross-societal generalization. For example, it

appears that "orality" is of crucial importance in the modal unconscious fantasies and character structure in Marquesas (Kardiner and Linton, 1939), Alor (Du Bois, 1944, Kardiner, 1945a), and Great Russia (Dicks, 1952, Gorer and Rickman, 1949). "Anality" may have a corresponding role in the modal personalities in Japan (Benedict, 1946a, Gorer, 1943), Tanala (Kardiner and Linton, 1939), and Germany (Dicks, 1950, and others). To say that orality is "important" in a given adult personality is to suggest that certain wishes, expectations, anxieties, and modes of functioning have a nuclear, organizing, energizing role, and that they will strongly influence the person's social thought and behavior There are, however, many ways of being "oral", the aim of empirical analysis is to describe the specific nature and operation of orality in the personality being studied Qualitative descriptions of this sort are available in the above studies. Unfortunately, however, the authors have not used standardized descriptive categories to convey their qualitative characterizations. This lack of a common language of analysis makes it difficult to represent systematically the similarities and differences among the various oral patterns The same is true for issues such as anality, aggression, security system, ego identity, and other high-level abstractions. In short, even when there is comparability in the psychological *issues* covered, the empirical delineations of personality are largely noncomparable in the descriptive *categories* employed Their theoretical value would be greatly enhanced if we had a reasonable number of descriptive categories in terms of which personalities might be at least crudely described and compared.

In addition, the absence of standardization in analysis has led to marked inconsistency in the psychological issues covered in various studies. For example, Gorer gives considerable attention to anality in the Japanese (1943) and to orality in the Russians (1949), however, he says almost nothing about orality in the first and anality in the second. It may well be that orality is not a nuclear issue in the Japanese, nor anality in the Russians, still, some reference to their operation and patterning would be most helpful for comparative purposes and would provide some assurance that they had been given serious consideration. Hallowell's (1940) experience with the Salteaux, mentioned above, is also relevant in this connection. He has shown that aggression is to be regarded not as a simple form of overt behavior but as a disposition that has functional significance at various levels of personality. To formulate its role in a given personality, we must describe not only the direct manifestations but also the indirect expressions, the unconscious fantasies, and the mechanisms of control. "Aggression" is thus not a single variable but a complex analytic issue under which numerous descriptive variables are subsumed.

A SUGGESTED APPROACH STANDARD ANALYTIC ISSUES

It would clearly be desirable, on both theoretical and methodological grounds, to move toward a standardized analytic scheme in terms of which modal personalities in all societies could be described and compared. However, the quest for standardization brings with it new problems. A workable analytic scheme can hardly contain more than thirty or forty categories. We do not yet have an adequate basis in personality theory, and certainly not in empirical knowledge, for producing a set of variables sure to have universal applicability and significance. And, in any case, a scheme which is limited to a relatively few, universally relevant variables would necessarily omit much that is important in any one society.

National character research is thus faced with a dilemma central to current personality research generally A standardized analytic scheme can, at its best, add to the technical rigor and theoretical value of our investigation. Premature standardization, on the other hand, may seriously impair the flexibility and inclusiveness of analysis, and at its worst leads to rigorous measurement without concern for the theoretical meaning or functional significance of the variables measured. Various partial resolutions of the "standardization" dilemma are now in process of development. Among the varied recent discussions by psychologists, we may note those of Cattell (1950); Eysenck (1947); Henry (1947); Kluckhohn, Murray, and Schneider (1953); and Rosenzweig (1951). The proposals to be made below derive most directly from the work of Adorno *et al* (1950) and of Frenkel-Brunswik (1942, 1948a, b).

One promising approach is to concentrate, for purposes of comparative analysis, on a limited number of psychological issues — such as "aggression" or "orality" — that meet at least the following criteria First, they should be found in adults universally, as a function both of maturational potentials common to man and of sociocultural characteristics common to human societies. Second, the manner in which they are handled should have functional significance for the individual personality as well

as for the social system, in that their patterning in the individual will affect his readiness to establish, accept, maintain, or change a given sociocultural pattern. A further task, one that will take longer to carry out, is to develop a set of descriptive categories for the empirical analysis of each issue. Modal personalities can then be described in terms of the presence or absence, and the patterning, of the various categories. The use of formal categories need not, and indeed should not, exclude a more idiosyncratic, clinical analysis, they are essentially an ordering device to facilitate cross-societal comparison and the determination of generalized relationships between modal personality and the sociocultural system Moreover, if the categories are to be psychologically meaningful, they must be relatively complex, and their assessment will therefore require some interpretive skill This in turn requires that the bases for interpretation be clarified and made explicit, and that evidence of adequate inter-rater agreement be obtained. Such an approach makes use of clinical assessment procedures but attempts to formalize the descriptive concepts and to meet minimal requirements of measurement.

The formulation of a single, "most important" set of analytic issues is a difficult matter Nevertheless, there are a number of issues that would probably be regarded by most current investigators as meeting the criteria of significance mentioned above We shall discuss only a few of these to illustrate the general problems involved. (*Compare* Aberle, 1951, pp 118-123)

Relation to authority The issue *relation to authority* meets our criteria of universal psychosocial relevance All children developing in a societal context are dependent on older figures (persons and, usually, psychologically real supernatural agents) who provide gratifications conditionally, who exert impulse-controlling and value-inducing pressures, and through whom self and world acquire increasing meaning The adult social world also inevitably contains status differentiations and authority figures of some sort — figures who represent power, morality, mastery, and the like

Viewed as an aspect of personality, the individual's relation to authority includes at least the following aspects: (a) his ways of adapting behaviorally in interaction with authority, (b) his personal ideology, that is, his beliefs, values and attitudes regarding authority and authority-subordinate relations; (c) the more central fantasies, defenses, and conceptions of authority and self that underlie, and are reflected in, his behavior and ideology. The relationships among these aspects are complex. Two individuals may show notable similarities in attitude and yet differ appreciably in their unconscious wishes and fears concerning authority. Again, an individual's modes of adapting to authority may be at variance with his conscious attitudes and may shift in accord with situational pressures or with changes in inner-defensive equilibrium Finally, "authority" is not a single, undifferentiated psychological entity Every person explicitly or implicitly distinguishes various kinds of authority, e.g., legitimate-illegitimate, feminine-masculine, arbitrary-rational, benign-malicious. Given these distinctions, the individual's behavioral adaptations, attitudes, and motivation-defense involvements are likely to vary considerably from one type of authority to another An adequate analysis must consider all of these

From a cultural point of view, it may be sufficient to consider only the value-attitude and the gross behavioral aspects of the relation to authority. And indeed, consistent, psychologically meaningful description of these characteristics in various societies would be of value for comparative purposes However, we enter fully into the realm of national character only when we place these within the context of modal *personality* and relate them to other, motivational and cognitive characteristics This last step is frequently overlooked For example, Mead's study of *Soviet Attitudes toward Authority* (1951a) is concerned in part with "relationships between character structure and social structure," and her analysis does indeed provide an interesting though incomplete picture of the "socially required" ways of thinking and adapting in the realm of authority. It does relatively little, however, to specify the content and structure of the modal *personality* types and their role in the production, maintenance, and change of institutionalized authority patterns This has been attempted in the exploratory case studies of the Soviet elite by Bauer (1953)

The general theory of authoritarian *vs.* equalitarian personality syndromes has been used as a context for several psychological analyses of relations to authority The earliest formulations appear to be those of Fromm (1936, 1941) and Reich (1945), and deal mainly with Germany. Erikson (1942) utilized similar concepts in discussing the modal personality represented in German Nazism. He suggests, for example, that the "good" Nazi authority is conceived of as a youthful, aggressive, older brother who leads a rebellion against the tyrannical but essentially weak paternal authority,

and that the aim in rebelling is to establish not equality but a truly invincible authority and a rigid social hierarchy Dicks (1950) and Levy (1948), in postwar German studies, found evidence of contrasting authoritarian and equalitarian types as well as an intermediate, heterogeneous group. Corresponding, though by no means identical, variations in personality structure have been found in Russia by Dicks (1952) and Mead (1951a), in the United States by Adorno *et al.* (1950), Bettelheim and Janowitz (1950), and others, and in Sweden by the UNESCO Tensions Project (1951) A relatively authoritarian pattern appears to be the dominant mode in numerous societies such as Japan (Benedict, 1946a; Gorer, 1943), Tanala (Kardiner, 1939), Alor (Du Bois, 1944), and Salteaux (Hallowell, 1940). American patterns of relation to authority have been recently discussed by Bateson (1942a,b), Erikson (1950), Fromm (1947), Gorer (1948), Margaret Mead (1940, 1942), Parsons (1949), Riesman (1950), and others Focused, on the whole, upon equalitarian aspects of American authority relations, these studies have pointed out important propensities in many Americans for extreme submission to external authority.

Apparently authoritarian personality theory has sufficiently general applicability to provide at least a partial framework for cross-societal analysis of relation to authority One of our immediate needs in this regard is to achieve greater differentiation of descriptive categories and greater standardization of analysis. Dicks (1950, 1952), for example, found a modal authoritarian structure in both his German and his Russian samples. But the categories and qualitative descriptions comprising the two analyses are not entirely comparable, so that his reports tell us less than they might about the similarities as well as the differences between these two groups. Erikson's (1950) analyses of Germany, Russia, and the United States have the same limitation. Moreover, many of the existing analyses of the authority issue, for the United States and elsewhere, are relatively incomplete in their coverage of the psychological aspects involved. Nevertheless, the problem of relation to authority has been considered in a sufficient number of societies so that, were the material collated, the beginnings of a "comparative national character approach" could be developed.

Conception of self. The inclusion of the issue *conception of self* in a standardized analytic scheme is justified by its universal applicability and its relevance to a variety of personality theories. An individual's conception of himself is ordinarily many-sided and internally contradictory. To determine and interrelate its many facets is no small undertaking We need to know which facets of the self-conception are unconscious, which facets are conscious and how they are regarded, for example, with pride, resignation, guilt, or casual acceptance, what the person thinks he is, what he would like to be, and what he expects, eagerly or anxiously, he will become Pervading the over-all conception of self will be the individual's concepts of masculinity and femininity, his values, in the form of both moral prohibitions and cathected ideals; and his modes of dealing with inner dispositions and with external opportunities and demands

Gillin's (1948) discussion of *internal* as against culturally provided but *external* security systems (Gillin and Nicholson, 1951), Riesman's (1950) dichotomy of inner- and outer-directed people, and Mead's (1947b) description of the "situational" type of personality arising under conditions of rapid culture change all center on the problem of self-conceptions The most extensive and systematic approaches to this problem in national character perspective, however, are provided by Erikson and Kardiner. By viewing *ego identity* as a product and at the same time a functional constituent of the ego, Erikson (1950) places it within the over-all psychoanalytic theory of personality structure and development His formulations not only advance ego theory but also reduce the gap between "individual" and 'social" psychology. Kardiner's (1939) concept of *individual security system* refers, in the most general sense, to the self-characteristics, such as modes of impulse control and social adaptation, by means of which the individual strives to achieve a secure, meaningful position in society and a correspondingly meaningful inner identity. Kardiner's own focus is mainly on specific self-characteristics as adaptations to group pressures, and he does not elaborate the "identity" aspect as Erikson does Both, however, contribute to our understanding of the ego and of ego-society relationships.

There are two other issues which for purposes of consolidating our presentation we subsume under the more general rubric of "conceptions of self," although from many points of view they would be assigned independent status as issues. These are the *bases for maintaining inner equilibrium* and the *major forms of anxiety.* The question posed by the former is, in effect, What must the individual do or be in order to maintain a sense of well-being? For example, in Bali, according to Jane Belo (1935),

a prime requirement is to have "balance." This involves extreme inner control over impulsivity, grace in expressive behavior, i e., posture, gesture, decorum, and well-nigh continual concern with one's position in the world geographically, religio-cosmologically, and socially. That the emphasis on balance has important defensive (anti-anxiety) functions — although it is by no means to be regarded as "merely" defensive — is shown by Balinese myths and festivals (Bateson and Mead, 1942). In other societies there are various other requirements, e g., material success, intellectual achievement, adherence to tradition, demonstrations of potency, and so on. Clearly, these "inner equilibrium" requirements are related to the cultural values. In our opinion, however, in the study of national *character* they should not be deduced from the values but rather should be determined through the study of individual personality dynamics, viewed within a sociocultural setting.

Closely related to the problem of inner equilibrium is that of the *major forms of anxiety* The term anxiety, as used here, refers to the experience — often unconscious — of threat to the ego structure The paradigm for this issue may be stated as follows "If I do (or think or feel) *X*, the consequence will be a painful, disrupting experience, *Y*." The *X* events ordinarily involve unconscious, value-violating impulses or conceptions which conflict with a restrictive morality. These are to be seen in relation to an external social context which, in varying degrees, intensifies the anxiety-laden tendencies, punishes their expression, and provides the individual with anxiety-resolving supports Although not focused on the problem of anxiety, Mead's (1940) discussion of cultural surrogates provides a stimulating description of a range of childhood training patterns that might well be expected to yield marked differences in the potency different stimuli possess for arousing anxiety.

Our primary concern here, however, is with the *Y* aspect of the total phenomenon, that is, the nature of the expected consequences of value violation What are the major forms of anticipated ego-threatening experience with which modal personalities may be differentially preoccupied? We shall suggest only a few leads in this direction: total disintegration; oral incorporation, withdrawal of love; devaluation by loved other, public shaming, i.e., devaluation by others who represent forms of support other than love; isolation from in-group; "flooding" of the ego by one's own unaccepted impulses; castration; and guilt, i.e., various forms of aggression against the self from a strongly internalized superego These categories are in part overlapping and are by no means mutually exclusive. It is sometimes difficult to decide which few are the "primary" anxieties, since many may be present to some degree. Nevertheless, the standard use of a list such as this one would be of value in the comparative analysis of national character

Primary dilemmas or conflicts — and ways of dealing with them It may be possible to organize the formulation of any given personality in terms of one or a few primary dilemmas This would be fruitful if such dilemmas exist widely but differentially, and if they serve as nuclei or primary bases for personality structuration Murray's concept of the "unity thema" (1938) is relevant here, referring as it does to the individual's conception of what is most problematical in life and to his major attempted resolutions of this problem Kardiner and Ovesey (1951) represent the two central, interrelated problems of American Negro modal personality as the control of aggression and the maintenance of self-esteem in the face of both familial and communal devaluation, restriction, and nonsupport, and they describe various ways in which these problems are handled Although this concept was not used by Bateson and Mead in their study of Bali (1942), their findings suggest that a central dilemma in male Balinese personality involves the expression vs inhibition of intense affect, both aggressive and sexual, toward the attractive-threatening female.

Erikson (1950) provides a potentially useful framework for "dilemma" analysis in his formulation of stages in ego development, each stage being conceived as a dilemma or conflict between two polarities. Of particular relevance here are the successive childhood dilemmas of trust vs basic mistrust, autonomy vs. shame and doubt, initiative vs guilt, and industry vs inferiority, also, the adolescent dilemmas of identity vs role diffusion, and intimacy vs. isolation. An individual may resolve a given dilemma reasonably well during the period or "stage" in which it is maturationally appropriate, and in the process achieve character traits, values, and adaptive modes that will contribute to his further development. To the extent that the dilemma remains unresolved, however, it continues in a relatively primitive form and has various consequences for the individual's further adaptive-defensive-productive characteristics Thus, although the eight dilemmas follow a developmental sequence, adult personalities can be characterized with regard to those earlier dilemmas that are currently opera-

tive in unresolved form Indeed, one of the chief advantages of these and other psychoanalytic "dilemma" concepts is that they have both contemporaneous adult relevance and developmental (child-adolescent) relevance

This list of issues might, of course, be very substantially extended For example, *modes of cognitive functioning, styles of expressive behavior,* and *the handling of major dispositions* such as aggression, dependency, curiosity, and homosexuality, would be placed high on the list of strategic issues by many However, rather than attempting an exhaustive or even an adequate list of such issues, we wish merely to suggest the lines along which further work might go. It will be noted, in this connection, that although we suggested specific issues as strategic, we did not become explicit as to the descriptive categories which might be used in recording and analyzing the data relevant to those issues. In our opinion, it is too early to establish a definitive set of categories, or even to specify the full range of cultural variation with regard to any issue We do assume, however, that agreement on a restricted number of critical issues is possible at the present stage of development, and that if this were coupled with a pervasive orientation toward devising appropriate categories, further comparative study of modal personality would be greatly facilitated.

Methodological Problems in the Assessment of Modal Personality Structures

Three broad types of procedure have been utilized, singly or in combination, in the assessment of national character: (1) *personality assessment* of varying numbers of individuals studied *as* individuals rather than through the behavior of the group as a whole, (2) psychological analysis of *collective adult phenomena* (institutional practices, folklore, mass media, and the like), with the assumption that the posited personality characteristics are modal in the population, and (3) psychological analysis of the *child-rearing system,* with the aim of inferring or determining the personality characteristics it induces in the child and, ultimately, in the next generation of adults Let us consider each of these methods in turn

PERSONALITY ASSESSMENT OF INDIVIDUALS

In our discussion of the definition of national character, we suggested that personality study of numerous individuals is, in principle, the most legitimate means of determining modal personality characteristics and their patterning To do this adequately, even in a relatively small and undifferentiated society, is clearly an enormous task It involves all of the sampling and procedural problems of public opinion or other survey research, plus additional problems of obtaining and analyzing personality-relevant material. National character research is thus faced with an old but still widespread dilemma Extensive, technically rigorous study of a large sample within a feasible number of subject and personnel manhours increases our ability to generalize, but limits the number and "depth" of the variables that can be investigated. On the other hand, intensive, "clinical" study of a small sample permits a psychologically more significant and complex analysis, but the generality of its findings must be established by large-scale investigation.

Although the "extensity-intensity" dilemma has by no means been solved, a number of lines of compromise and partial solution have been attempted over the past fifteen or twenty years. One major development is in the use of brief clinical-assessment procedures. These procedures reduce the amount of time required for each case, and have thus permitted investigation of at least moderate-sized samples of about 50 to 100 cases. *Projective techniques* have played perhaps the most notable part in this development, which is so broad that we can attempt only a sketchy account of the work done. The Rorschach Test has been used in numerous studies, of which the following are examples: Hallowell (1940) on the Salteaux, Oberholzer in a remarkable "blind" analysis reported in Du Bois' book on Alor (1944); Wallace (1952a,b) on the Tuscarora and Ojibwa; Kaplan (1948) on four Southwestern groups, Joseph, Spicer, and Chesky (1949) on the Papago Indians, and Joseph and Murray (1951) on the Saipanese. The Thematic Apperception Test was used as the primary basis for deriving modal personality types among the Hopi and Navaho by Henry (1947), and among Japanese Americans by Caudill (1952), who makes a noteworthy attempt to define *several* modal patterns and to understand them as variant resolutions of common problems. Of the various studies of children's play, those by Bateson and Mead (1942), Henry and Henry (1944), Levy (1939), and Róheim (1941, 1943a) may be cited as examples. Briefer paper-and-pencil techniques of the Sentence Completion variety have been used in postwar German studies by Levy

(1948), McGranahan (1946), and Schaffner (1948), among others. Projective techniques constitute one form of standardized personal document The use of personal documents in psychology has been discussed by Allport (1942), and in social science by Gottschalk, Kluckhohn, and Angell (1945). Personal "life-history" documents were used by Allport, Bruner, and Jandorf (1941) in a study bearing on German national character.

The *semistructured clinical interview* is another assessment procedure that holds considerable promise for national character research. Taken literally, the protocol yielded by such an interview provides information about social conditions (as in the customary ethnographic use of "informant" interviews) or about the subject's surface opinions, attitudes, and values. Analyzed interpretively, however, it permits a variety of inferences concerning the person's less conscious wishes and conceptions, his modes of cognitive and adaptive functioning, and other structural-dynamic characteristics. Its systematic application in research is illustrated in the work of Adorno *et al.* (1950), of Murray and Morgan (1945a, b), and of the Office of Strategic Services (1948) One of the more important recent utilizations of the clinical interview in modal personality research is to be found in the study of American Negroes by Kardiner and Ovesey (1951), whose 25 subjects were given "psychoanalytic interviews" ranging in number from ten to over a hundred. Various methodological weaknesses of this study leave room for question concerning the validity of its findings and the degree to which they can be generalized It should be noted, however, that Kardiner and Ovesey present a psychologically meaningful portrayal of *modal* Negro personalities of a quality not previously achieved in innumerable sociological and socio-psychological studies. The use of the semistructured clinical interview in the study of national character is perhaps best illustrated, however, in Dicks' investigations of Germans (1950) and Russians (1952) Dicks' work points up one special advantage of the clinical interview over most projective tests, namely, that it casts light not merely on the psychological properties of the person but also on the differential expression of those properties in various spheres of social life.

The studies cited in the foregoing discussion have one methodological characteristic in common assessment techniques applied to a series of individual subjects provide the *primary* evidence from which modal personality structures are derived. However, these studies vary considerably in the kinds of secondary evidence considered, and in the *analytic procedure by which the total evidence* (observations, ethnographic material, test protocols, etc.) *is transformed into "modal personality" formulations* The simplest method is to apply only a single technique, to analyze the resulting protocols by means of a standardized scoring scheme, and to derive modal personality characteristics and patterns through statistical analysis of the distributions of individual scores This method is perhaps the best one from the point of view of reliable, replicable measurement However, its value at the present time is limited, particularly when the analysis leans heavily on a set of concrete scoring categories Thus, Kaplan (1948), who used Rorschach scores in a relatively uninterpretive manner, found difficulty in arriving at psychologically meaningful generalizations On the other hand Dicks (1950) and Frenkel-Brunswik (in Adorno *et al.*, 1950) applied more interpretive scoring categories to their interviews and were able to use simple statistical procedures fruitfully as a basis for generalization.

The analytic procedure ordinarily used in clinical, individual-centered research on modal personality is approximately as follows (See Caudill (1952), Henry (1947), and Kardiner and Ovesey (1951) for three variants of this procedure) The investigator first attempts to "understand" his individual subjects, that is, to formulate for each case the significant personality characteristics and their interrelations He is guided in this by certain general interpretive principles but does not restrict himself to a formal scoring procedure applied routinely to all cases. He then derives common or, less frequently, modal characteristics and patterns from a consideration of his total series of individual case analyses This last analytic operation, transforming a series of individual descriptions into a formulation of what is modal for the sample, is a highly complex one It does not ordinarily involve any statistical procedure, even something as simple as counting the frequency of various characteristics singly or in syndromes. In other words, it is not a *composite derived statistically* from distributions of individual scores. The modal personality is, rather, a hypothetical *reconstruction* of a common structure posited interpretively from a series of individual patterns.

This approach has a number of methodological ambiguities, both in the assessment of single individuals and in the reconstruction of modal personality structures. Moreover, the analysis solely in terms of qualitative patterns makes it

difficult to determine the degree to which the individual members approximate the modal type Ideally, we must determine not only what is modal, but also the degree and varieties of individual variability. Until we can do this, we run the risk of spurious homogenization, that is, of exaggerating the uniformities in our formulations of national character Despite its limitations, however, this approach has provided an initial basis for dealing with a tremendously difficult problem. The immediate task, it would seem, is to supplement rather than replace the highly intuitive assessments and mode constructions with more formal procedures. The psychologist can play an important part in this process by developing more adequate means of obtaining, analyzing, and generalizing from personality-relevant material on large numbers of individuals.

Insofar as more formal procedures are used to gather and analyze personality data from large numbers of individuals, increasing attention should be given to problems of sample size and composition Most of the psychological research on national populations based on the study of individuals has utilized such oddly composed samples that it is often unclear to what parent population, if any, the sample characteristics have reference (cf Chapter 14) In addition, an apparent unconcern for sampling problems characterizes many students of national character, despite frequent protestations of genuine faith in the virtues of carefully drawn and large samples. This is perhaps most conspicuous in the work of Geoffrey Gorer His study of Japan (1943), for example, refers to "a very detailed questionnaire" but gives no indication of how many Japanese completed it, and his report on Russia (1949) mentions a total of 300 to 400 interviews, but fails to indicate what proportion of these were actually with Russians as against informants merely *familiar* with Russians as a result of contacts made in Russia or abroad

It is true, of course, that frequently the inadequacy of the sample in national character studies is due to limits of time and money, to resistances to personality exploration on the part of subgroups in the population, or to the general inaccessibility of the citizens of certain countries. Even granting such limitations, however, greater attention to sampling considerations is in order in the selection of cases for study among those available There is also need for more critical assessment of the implications of sample size and composition for the conclusions drawn. Greater efforts in these directions could effect a great increase in the value of the studies undertaken even with limited samples, and would certainly increase the chances that many valuable insights would be less summarily dismissed by hostile critics of national character studies

STUDY OF COLLECTIVE ADULT PHENOMENA

A second major method in the study of modal personality structures is the analysis of collective adult phenomena political behavior, various institutional practices, religious idea systems and rituals, mass media, and the like This method seems to have been predominant thus far, since most national character research has been carried out by anthropologists or by psychoanalytically oriented clinicians working with materials provided by anthropologists It merits more detailed consideration than is possible here. We shall attempt merely to indicate its general advantages and limitations, and to give examples of its application

Collective documents Let us consider first the analysis of collective documents, that is, "documents" distributed orally or in writing throughout major segments of the society. These include folktales, religious works, popular magazines, movies, and so on. There are a number of studies in which the analysis of such materials provided the primary basis for the derivation of personality modes, although in most cases the investigator had additional secondary evidence from his own experience and from other studies to guide his analysis. The following examples will suffice to indicate the variety of phenomena and analytic procedures Wolfenstein and Leites (1950) on American and other movies, Kracauer (1947) and Bateson (1943) on German movies, Erikson (1950) on a single Russian movie and on *Mein Kampf*, Thorner (1945) on German language, McGranahan and Wayne (1948) on German plays, and numerous psychoanalytic analyses of religious myths, rituals, and doctrines, e.g., Freud (1938), Fromm (1931, 1941), Kardiner (1945a), Reik (1951), and Róheim (1943b), see also Chapter 13.

To the extent that these documents are "popular" or are congruent with what is known of the formal social structure and culture, they are *in some sense* representative of the collectivity and they can legitimately be expected to yield insights concerning collective psychological processes However, the psychological characteristics expressed in these documents may correspond only partially to the characteristics which exist modally in the members of the society. Traditional documents such as myths or religious doctrine may have little

meaning for the present populace, or they may be attributed special meanings not apparent from their literal content. Currently produced documents such as movies or popular fiction may be more indicative of the personalities of the elite who produce them than of the broad consumer public (cf. Farber, 1950, 1953).

It is, of course, true that if such a product is to have wide appeal, it must to some degree reflect important sentiments, values, and fantasies of the consuming public. However, the possibility of "slippage" must be considered. A popular movie, or type of movie, may offend a large segment of the population, different groups may enjoy different aspects of it, or the same aspects but for different reasons, and a great variety of popular movies may leave unrepresented some of the most important psychological characteristics of the national population. Erikson's (1950) analysis of *Mein Kampf* provides significant insights into German authoritarianism, but offers no suggestions about other modal patterns less receptive to Hitler's imagery (Dicks, 1950). In short, it would appear that although collective documents are of great value in providing leads for the study of national character, they can never tell us with any conclusiveness what range and varieties of modal personality actually exist in a society. The study of numerous individuals, *as* individuals, is in principle the primary method for the assessment of national character. Only by maintaining a clear distinction, both in theory and in research, between individual personality and sociocultural nexus, can we adequately study their interaction and reciprocal influence.

Collective behavior. A procedure closely related to the study of collective documents, used particularly by those who work with ethnographic materials, is to analyze psychologically the observed regularities of collective behavior. Take, for example, the concept of cultural "plot," earlier emphasized by Róheim (1932), and applied by Bateson and Mead in their study of Bali (1942). (See also Gorer, 1943, and Opler, 1945 and 1946, on cultural "themes.") One of the recurrent plots in Balinese life involves a dramatic episode between a seductive female and a responsive male. The female initiates a playful, intense, erotically toned relationship with the interested male, only to shatter his joyful expectations at the last moment by her cold withdrawal. This sequence can be observed in the mother-child relationship and in various adult heterosexual contexts. Its aggressive implications are brought out in ceremonial dances in which the coquettish woman turns into a witch and the bitterly frustrated man first tries to kill her and then literally almost kills himself.

This plot is a "psychocultural" characteristic, it is not in itself a personality characteristic and cannot be *equated* with national character. However, the emotional intensity of the plot, as well as its re-enactment in numerous social contexts, give us good reason to suppose that it *reflects* personality trends that are significant and modal in the Balinese. Even here, of course, extreme caution is required in determining the importance or "centrality" of any given theme or plot. Unfortunately, just as the students of national character who work primarily with individuals often fail to consider sampling problems, so often do those who work with "plots" and themes neglect to indicate what kind of a sample they have drawn from what universe of culturally patterned collective behavior.

Assuming these reservations are kept in mind, it seems reasonable that where modal personality structures have not yet been or cannot be derived for a given society through the study of numerous individuals, then cultural plots analyzed psychologically acquire great importance as a *source of hypotheses* regarding modal personality trends. For example, if a person expressed the above "seduction-withdrawal" fantasy spontaneously in various situations, a psychological interpreter might infer personality characteristics such as defensive blandness in the face of possible frustration, unreadiness for close personal relationships and for "romantic love", conception of the "bad" woman as controlling-depriving, and so on. These suggested characteristics are, of course, noted merely for illustrative purposes, adequate interpretation clearly would require additional knowledge of fantasies, behavior, and situational context. Similarly, when we observe that the "seduction-withdrawal" fantasy is widely expressed in Bali in the form of a "cultural plot," we may hypothesize that the corresponding personality characteristics are also widely (modally) distributed. In short, we may propose that the immanent psychological meaning of the plot is isomorphic with a set of significant, modal personality characteristics.

It should be emphasized, however, that extrapolation from modal behavior plots to modal personality structures involves at least two major assumptions. First, that the specific plot meanings have considerable *emotional importance* to the individuals involved, or, in other words, that the plots are not carried out in a meaningless or passively conforming way. Second, that the plots have a *common core meaning* for most persons, whatever idiosyn-

cratic variations there may also be. It is therefore incumbent on the investigator to provide convincing evidence that the plot occurs in many institutional areas and that it possesses emotional importance and temporal stability, as well as psychological consistency with other features of the sociocultural pattern.

Even at its best, however, the extrapolation of modal personality from highly institutionalized and culturally standardized behavior can provide only a *hypothetical construction* of national character. The adequate *demonstration* of this construction requires that it also be obtained through a large-scale study of individuals This will necessitate greater psychological training of social scientists, and "social" training of psychologists, than has yet been achieved.

STUDY OF CHILD-REARING SYSTEMS

A third method used in the assessment of national character, and one currently attributed great theoretical importance, is the analysis of the child-rearing system, particularly the familial setting during the child's first five or six years (Heinicke and Whiting, 1953) We shall consider this method only briefly at this point, and take it up again in the following section on the sociocultural determinants of modal personality. Ideally, study of the family constellation, forms of discipline, and other developmentally relevant events ought to be accompanied by study of individual children The resulting picture of modal personality at various developmental levels could then be brought into relation to the independently derived formulations concerning modal adult personality This ideal is far from realization.

The modal personality studies that deal with child rearing, e g , Bateson and Mead (1942), Du Bois (1941, 1944), Erikson (1945, 1950), Gorer (1943, 1948), Gorer and Rickman (1949), Kardiner (1939, 1945a), Leighton and Kluckhohn (1947), Thompson and Joseph (1944), and others, utilize their findings primarily as a basis for inferences about modal *adult* personality. The procedure is approximately as follows. The investigator tries to learn what is done to the children as they develop, particularly the early feeding and weaning practices, the modes of toilet training, the various demands and prohibitions, rewards and punishments relative to the major dispositions in the child, and so on. From this generalized description of the child-rearing system, and generally without personality assessment of individual children, he derives hypothetical modal personality trends among the children. At the same time, he may attempt a formulation of modal adult personality structures through analysis of collective documents, ethnographic descriptions, and other accounts of collective adult phenomena. He is usually aided in this by his impressions of individual members of the society or, when he lacks first-hand experience, by the impressions of colleagues and informants as to "what it feels like" to be a member of the particular society.

It is of the greatest methodological importance, however, that ordinarily neither the child personality modes nor those for adults are derived from personality studies of numerous individuals Rather, the psychological interpreter seems to have one eye on the child-rearing system and to be asking, "What psychological effects are these parent-child relations, basic disciplines, and so on, likely to have on the growing child?" At the same time he keeps his other eye on the adult sociocultural pattern and asks, "What kinds of personality characteristics are expressed in these patterned behaviors and ideas?" His aim is to achieve binocular integration, to arrive at a single answer to both questions That is, the modal personality trends hypothesized for the child form the nucleus of the personality structure derived for adults. What is most central in personality is thus conceived of as a link between childhood experience and adult social functioning

This procedure accords, in a general though greatly oversimplified sense, with modern psychoanalytic and related theories of personality that have already proven useful in individual psychological studies In criticizing it, we should keep in mind the social fact that the role of psychological interpreter has until now been loosely appended to a research system primarily concerned with sociocultural processes. And, despite its limitations, the study of the modal psychological environment in childhood has, at the least, provided numerous hypotheses about adult character — hypotheses that "make sense" even when they have not been directly tested by numerous personality studies of adults.

However, this procedure contains a host of possible pitfalls and simplistic assumptions. For example, it has allowed some investigators to link a specific childhood event to a specific adult character trait without adequate consideration of the over-all childhood context or of the intervening, complex, developmental sequence. An example is to be found in Gorer's (Gorer and Rickman, 1949) inductive leap from

the experience of swaddling in childhood to impassivity and controlled rage as adult traits in the Great Russians This inference involves the assumption — which he rather denies making — that a particular recurrent childhood experience produces, in itself, a particular childhood personality disposition, and that this disposition continues unchanged throughout life. The relation between childhood experience and adult personality is clearly in need of further theoretical clarification and empirical research, with greater attention given to intervening events. In other studies of child rearing, notably those of Kardiner (1939, 1945a), there is less atomization of the developmental process and greater concern with the total patterning and temporal sequence of childhood events Kardiner is able to find an isomorphism between the modal personality structure derived from a study of the child-rearing system and that derived from study of collective adult phenomena He may exaggerate the similarity, however, since he starts with the assumption of isomorphism and since his analyses of child rearing and of adult social milieu are so interdependent. Moreover, the similarity is undoubtedly greater in the case of nonliterate societies than for modern nations.

To date, then, study of the child-rearing system has been used mainly as a means of supporting and elaborating inferences about adult modal personality structures which were initially drawn from the study of adult institutions. Ultimately, we must engage in *independent* but *coordinated* study of the child-rearing system and individual children, on the one hand, and the adult social milieu and individual adults, on the other.

The reliance on collective documents or data on child-rearing methods probably contributes in significant degree to the fact that national character studies ordinarily designate only one modal personality pattern for any given population Unimodal analysis seems hardly justified, particularly in the case of large-scale, heterogeneous national populations such as that in the United States From a methodological point of view, there is some interest in noting that what has been called the "strain toward consistency" in culture might be expected to manifest itself especially strongly in collective documents and group ceremonials. Analysis of these phenomena is thus likely to obscure major differences in the actual distribution of personality traits. As for the child-rearing practices, these are more usually based on what informants describe as *appropriate* behavior, which almost invariably emerges as more consistent than the actual behavior. It is furthermore the case that although child-rearing practices may be relatively standardized over a given population, later life experience will not necessarily be equally standardized and certainly may have a markedly different quality from the earlier experiences (Benedict, 1938; Goldfrank, 1947; Kluckhohn, 1947, Underwood and Honigmann, 1947) These problems are further considered in the discussion of the determinants of personality. They are mentioned here to emphasize the importance of basing national character descriptions on the study of adult individuals.

We have placed what may seem an undue emphasis on the importance of the study of individuals in national character research. One may suggest, as Margaret Mead does in some of her writings (1951b), that personality and culture are so inextricably bound together, so reciprocally interweaving, that the formal distinction between them need not or cannot be maintained in national character studies We agree that "personality," "culture," and "social structure" are three abstractions derived for the most part from a single order of phenomena, namely, human behavior and experience The distinction between them is thus largely an analytic, not a phenomenal, one However, if this distinction is to be usefully applied in societal analysis, we must achieve independent analyses of modal personality structure, on the one hand, and culture and social structure on the other. Given these distinct but coordinated analyses we can hope to approach more adequately the major substantive problems of the national character field, particularly those involving the functional relationships between national character and sociocultural matrix. These problems are discussed in the next two sections.

The Role of the Sociocultural System in the Formation of Modal Personality Structures

Thus far we have been concerned primarily with theoretical and methodological problems in the delineation of modal adult personality. Two major questions await our consideration: First, what are the major *determinants* of modal personality? Second, what are its social *consequences,* that is, what is the role of modal personality in maintaining or changing the sociocultural system? Let us turn now to the first question, and defer the second until the following section.

Within the context defined by the title of

this paper, the problem of "determinants" may be stated as follows *What regularities in the social conditions of development — in the more or less standardized, sociocultural matrix — help determine the observed regularities (or modes) in adult personality?* We thus exclude from consideration a host of developmental influences that are not societally standardized and which contribute to interindividual differences and intra-individual uniqueness in every society. It should be noted, however, that personality variability is as "real" a property of society as personality standardization, and that the determinants of both should be considered in a more complete analysis Moreover, social scientists must have some appreciation of the total process of individual personality formation if they are to determine the psychological meaning and consequences of standardized social influences.

Brief mention should be made of several mode-determining influences that are not sociocultural and are therefore beyond the scope of the present discussion. The possible importance of constitution, in Sheldon and Stevens' (1942) sense, has been suggested by Morris (1947). As Anastasi and Foley (1949) and Hall (1941) have pointed out, psychologists have in recent years tended to neglect heredity and temperament as possible sources of individual and group differences Erikson's analysis of the Yurok (1950) places considerable stress on the river and the salmon run as *ecological* bases for personality development. Indeed, ecology may be as important for modal personality as for technology, culture, and social structure (Faris, 1944). In this realm, *climate* and *diet* are but two of many other nonsociocultural factors whose relevance for the formation of modal personality merits further investigation.

INFANT AND CHILD CARE DISCIPLINES

In considering sociocultural determinants of modal personality structures, attention has been focused overwhelmingly, indeed almost exclusively, on infant and child care disciplines. For example, in Margaret Mead's (1951b, p. 74) treatment of "cultural character," it is conceived as arising out of, or is defined as, "a circular system within which . . the method of child rearing, the presence of a particular literary tradition, the nature of the domestic and public architecture, the religious beliefs, the political system, are all conditions within which a given kind of personality develops." Child training has been selected for special attention "simply because this is the most convenient place to interrupt the circle for purposes of study" (also see Benedict, 1949; Gorer, 1950). Exactly why child-rearing practices should be the "most convenient" to study of the items in this list is not readily apparent. In any event, if national character is *constituted* by the total circular system, there clearly is no point in further pursuing the problem of determinants, since national character as thus defined appears to include all of its probable determinants On the other hand, if national character is conceived of as modal personality structures, as we have suggested, and its *determinant* is the total "circular system," then studying child rearing alone hardly seems adequate Rather, it would seem necessary to study the simultaneous and coordinate impact of at least several items from the total system Unfortunately, it is in precisely this respect that most national character studies are weakest, since they have seriously neglected the role played in the formation of modal personality by the political system, patterns of economic organization, media of mass communication, etc (Inkeles, 1953).

DEVELOPMENTAL THEORY

At a theoretical level, psychoanalytic theory has been the decisive influence in turning the attention of students of national character to infancy and childhood as a crucial period in personality structuration (Fromm, 1949, Kluckhohn, 1944, Mead, 1951b) This in turn has led to consideration of the family not merely as a formal kinship system or role structure, but in addition as a psychologically meaningful relationship system (Fromm, 1936, Kardiner, 1939) From the point of view of its child-rearing activities, the family is seen as having both an *individual* function, namely, to promote the child's development, and a *societal* function which, as Freud (1930) observed, is to induce the kind of (modal) personality formation that will make the growing offspring maximally receptive to the prevailing ideas and maximally adaptive within the existing social order. The societal function is complicated, in modern industrial civilization, by the fact that each new generation must to some degree innovate and adapt to changes in the social order. Thus, capacity for change becomes a societally required, although not necessarily a modally achieved, personality characteristic (Alexander, 1948, 1951; Erikson, 1950, Fromm, 1941, Mead, 1940, 1947b).

Although the various clinical psychoanalysts

and psychoanalytically minded social scientists differ in their views regarding the process and the determinants of early personality development, they are in substantial agreement that the major outlines of individual personality become crystallized in childhood (roughly the first six years of life). Thus, one of Gorer's guiding postulates is that "the habits established early in the life of the individual influence all subsequent learning, and therefore the experiences of early childhood are of predominant importance" (1943, p. 107). Róheim's "ontogenetic theory of culture" (1943b) predicates a correspondence between infancy situation and adult cultural forms, and Whiting and Child (1953), through cross-cultural studies, have found significant relationships between child-rearing methods and adult idea systems and practices. Fromm (1941) and Reich (1945) regard the family as the reproductive mechanism of the social organization because of its key role in early personality formation. Kardiner (1939), giving perhaps the most explicit formulation of individual-society interaction, proposes that modal child personality is of central importance for later adult personality and in turn for the maintenance or change of the sociocultural system.

Critics of the above approach have pointed out that the childhood personality and the adulthood personality of a given individual are by no means identical. Although one may be able *ad hoc* to discover correspondences between them, it is difficult to predict what the adult personality will be from a knowledge only of the child personality. As Benedict (1938) has noted, there may be drastic shifts or discontinuities in the individual's cultural experience from one age period to the next, and traumatic or supportive experience occurring in middle childhood or later may be of decisive importance for further personality development. Goldfrank (1945), Orlansky (1949), and Underwood and Honigmann (1947) develop this argument more extensively with regard to possible contrasts between infancy (roughly the first year of life) and later periods. Since the proposition that personality structure is fully established in *infancy* is held only by the "straw man" Freudian constructed by some writers, we shall not discuss it here. The immediate question is this: How deep is the contradiction between the psychoanalytic postulate that the personality formation in early childhood is "basic" to adult personality, and the observation that important developmental changes occur in the intervening years?

This dilemma is, in certain respects, an artificial one. The psychoanalytic position is not that child personality and adult personality are *identical,* but that the former provides a nucleus, foundation, or structural framework for the latter. Consider the individual who, at the end of early childhood, has intense oral destructive fantasies in which he is alternately the destroyer and the victim of an omnipotent, evil force Psychoanalytic theory would seem to require the prediction that these fantasies will have an important, organizing role in the later, adult personality, but the form in which they are expressed, and the degree to which they remain ego alien or become synthesized into a personally and culturally meaningful ego identity, will depend in no small part upon experiences in middle childhood, adolescence, and beyond. A rather striking illustration of this problem is provided in Erikson's (1950, pp. 381-388) discussion of the Dakota.

The psychoanalytic developmental theory of oral, anal, phallic, and genital psychosexual stages, of ego and superego formation, and of the Oedipus complex and its variant resolutions, as ongoing processes *in the child,* has been a rich source of hypotheses concerning the psychologically relevant characteristics of the *social context* in which children develop The early psychoanalytic theory of development has been modified and extended in various directions by Freudians and neo-Freudians, by socially oriented psychiatrists such as Sullivan (1947), and by investigators concerned with behavior-learning theory (Bateson, 1944, Dollard *et al*, 1939; Gorer, 1943, Whiting and Child, 1953). The similarities and differences among these viewpoints have not received the attention they deserve There is great need for a systematic comparison, in national character perspective, of the major theoretical approaches currently taken in the study of the nature and determinants of personality development (Heinicke and Whiting, 1953).

The relative lack of focal concern with developmental theory is manifested in various ways. There are relatively few articles devoted primarily to theoretical discussion in this area, as Margaret Mead's recent reviews of national character studies (1951b, 1953) implicitly indicate. Her earlier review of "research on primitive children" (1946) is an additional example. Although she presents Erikson's version of psychosexual development in an extensively annotated table, neither his nor any other systematic viewpoint on personality development plays an important part in the body of her report. Gorer (1943) presents twelve "postulates" which he regards as "fairly rigid theoreti-

cal formulations" governing his analysis of Japanese culture While this attempt at explicitness is commendable, it is clear that his postulates, whatever their intrinsic adequacy, provide only a general approach rather than a governing conceptual system (see also Schneider, 1950). Orlansky (1949) gives an extensive though hardly dispassionate review of theory and findings concerning the relation between "infant care and (adult) personality" An earlier paper by Mowrer and Kluckhohn (1944) provides a helpful overview, and a general theoretical discussion is available in Parsons (1950, 1951).

The psychoanalytic viewpoints allow, in principle, for change as well as constancy in development and for consideration of the total developmental sequence At the same time, there has been a strong tendency in actual practice to focus exclusively on early childhood and to neglect later formative periods This tendency arises in part from the relative paucity of developmental theory concerning the later periods. For example, Kardiner (1939, 1945a) attempts in his various studies to describe the "life cycle of the individual" from birth to adulthood. Conceptually, however, he relates adult personality primarily to the events of early childhood, with hardly a glance at the intervening developmental sequence Roheim (1932) suggests that the individual can develop specific cultural values and ways only *after* the major processes of superego formation have occurred, that is, after the age of five or six. Devereux (1951), following Róheim's lead, proposes that the period from the phallic psychosexual stage until puberty is in many respects the crucial one for the development of an articulate "culture" within the individual. However, neither investigator has provided much in the way of a conceptual account or an empirical description of this development.

Theoretical interest in personality development during middle childhood, puberty, and adolescence has increased notably within the past ten years, although this trend has only just begun to make itself felt in national character research. Sullivan (1948) offers a number of interesting ideas in this connection, but his theory is relatively schematic and has not yet been explicitly utilized in societal investigations. The same is true of Murphy (1947), although some of the merits of his approach may be inferred from his study of India (1953). The successive volumes of *The Psychoanalytic Study of the Child* (1945-52) reveal a growing concern with post-Oedipal development among psychoanalysts. The low level of interest in this problem prior to 1940 can be seen in the brief sections on "latency" and "adolescence" in the textbook by Fenichel (1945), who points to the need for further study and theory. One of the more elaborate attempts in this direction is Erikson's (1950) theory of stages in ego development, which bears important similarities to Sullivan's less fully developed scheme. Unfortunately, Erikson's theory was developed too late to be tested in his field investigations of the Sioux and the Yurok (1945), but its promise for the study of modal personality is shown in his impressionistic sketches of American, German, and Russian development (1950).

Benedict (1938), as we have noted, was one of the first to call attention to experiences intervening in development after infancy, and she has fully observed her own cautions (1946a, Ch 12) Margaret Mead has placed noteworthy emphasis on the continuing influence of sociocultural participation on personality. In her discussion of American character (1940), for example, she notes that adult personality must be seen in relation to both the shame-oriented, diffuse-authority, *adolescent* peer culture, and the family setting of early *childhood* with its greater demand for inner moral control by the child and its induction of guilt as a consequence of value violation. This is but one of many instances of "cultural phasing," of shifts in the patterning of self-definition and interpersonal relationships from one age period to the next. Other instances are given by Beaglehole (1944) and Leighton and Kluckhohn (1947). These writers are able to encompass the phenomena of cultural phasing within the framework of psychoanalytic theory. They stress the importance of personality changes during middle childhood and adolescence, but they seek to understand these changes in the light of the basic structure established in early childhood. In general, however, it seems fair to say that more has been done to illustrate than to conceptualize the operation of culturally induced discontinuities in psychological development.

Beyond the study of infant and child care disciplines, and some consideration of developmental sequences and cultural phasing, relatively little has been done to explore additional determinants of modal personality structuration. Erikson (1950), Fromm (1941), and Margaret Mead (1940, 1942, 1947b, 1951a), have made major contributions in this area. They suggest as important determinants: conditions of sociocultural change as contrasted with stability; being raised by parents who are firmly rooted in their local culture as contrasted with those who are part of an immigrant minority in a strange culture; coming to adoles-

cence in a culture in which the adults are respected as against one in which they are devalued relative to the adolescent peer culture, having available a rich store of valued role models as contrasted with having only an impoverished and degenerated cultural heritage, etc

These are merely illustrative of the mass of important dimensions of the sociocultural setting which undoubtedly influence the development of modal personality structures either directly or by being mediated through significant adults Some of these conditions — such as rapid disintegration of old stable core cultures, marked shifts in the definition of previously venerated role positions such as the elder and the sage, urbanization, industrialization and other forms of economic dislocation and reorganization, mass communication and mass recreation — are already widespread and are likely to become important influences in still larger areas of the world in the next few decades Their impact on modal personality patterns may be substantial, and there is great need for fuller understanding of this relationship. If these problems are to be explored there must be a broadening of scope beyond the almost exclusive emphasis on infant and child care disciplines in the current studies of determinants of national character.

SOME SHORTCOMINGS OF EMPIRICAL STUDIES

The foregoing theoretical problems are reflected, and often magnified, in empirical studies of the determinants of modal personality As we have already observed, these studies have focused primarily on child-rearing practices during the first five or six years of life Interest has centered largely on the handling of major dispositions (dependency, aggression, sexual curiosity, and the like), the time and modes of weaning, toilet training, and sex-role differentiation, the patterning of parental authority *vis-à-vis* the child, and the general degree of "permissiveness" or "punitiveness" at various age levels.

Narrow selection of modes and determinants One of the major shortcomings of the empirical work has been the tendency to give virtually exclusive emphasis in any one study to only one determinant, without considering other determinants which both on theoretical grounds and in other empirical research have been shown to be of substantial importance. Thus, Gorer, as noted earlier, gives great emphasis to toilet training in studying the Japanese, but gives little attention to oral gratifications, frustrations, and expectation patterns. The reverse is the case in his treatment of Russian national character. Such an approach increases the chances that the selected determinant will be seen as overwhelmingly important in shaping the modal personality type in the given society, and indeed it has been just such overemphasis which many commentaries have attributed to Gorer and have severely criticized Since other determinants were not simultaneously introduced by Gorer, his assertion that he does not regard any one determinant as central naturally tends to go unnoticed or to be passed off as merely *pro forma*.

A closely related influence in producing an impression of unimodality in the determination of modal personality arises from the frequent failure to disentangle value normative statements from frequency distributions of actual behavior. There are extraordinarily few studies that even approximate the precision reported by Kluckhohn (1947) for the Navaho studies, in recording *actual* behavior in the handling of infants and young children, and particularly in reporting the range of variation around certain central tendencies Most studies, it is true, hardly have the resources adequate for such purposes. Nevertheless, the marked variation in opinion and practice in the highly homogeneous Navaho group as to the appropriate time and relative abruptness of so crucial an event as weaning, helps to highlight the risks inherent in basing interpretations of national character on the description of child-rearing norms given by a few informants.

This problem becomes critical, of course, in highly heterogeneous societies For example, the addition of the class variable alone so sharply divides the population of the United States along lines of child-rearing procedures that Allison Davis (1941, p. 35) is led to assert that "very few of the statements which one might make concerning the . socialization . . of lower-class children would hold for the upper-middle even in the same city." Not only are goals set before the lower-class white or Negro child basically unlike those set in the lower-middle class, Davis affirms, but "this difference is greatest in those areas of behavior which middle-class society most strongly controls, i.e., aggression, sex responses, and property rights." Such critical internal differentiation in the population under study is often systematically neglected in national character research. Gorer (1948, p. 75), for example, asserts that "all but an eccentric minority of child-rearing systems [in America] . . . lay down rigidly at what times the baby shall be given what foods,"

and in a footnote attributes *only* to "progressive circles" a recent shift to self-demand. Gorer is, of course, reporting only one mode, that of the middle classes. In point of fact, feeding on demand is apparently the *standard* approach to the child's hunger responses in a very large segment of the total population, that is, in the "lower classes." Thus, both white and Negro middle-class mothers reported "children fed when they seemed hungry" only about 5 percent of the time, but *lower-class* white and Negro mothers reported this response, respectively, 35 and 50 percent of the time (Davis and Havighurst, 1946)

The crucial point here lies not in criticizing the precision of Gorer's work, although this lack of precision deserves note as an example of a widespread tendency, but rather in emphasizing the importance of assessing *multi*modal patterns in personality in large-scale national populations To discover such multiple modes where they exist is important not solely to meet the canons of reliable scientific investigation knowledge about these personality modes is essential for an understanding of the interrelations between personality and the social system in complex, heterogeneous social structures characterized by multimodal patterns of structuring interpersonal relations and role demands

Inadequacies in observation and interpretation Quite apart from the relatively arbitrary selection of single determinants and the neglect of variation in those determinants, one of the major deficiencies evident in the reported literature has been the inadequacy of observation and interpretation of the determinants selected for exploration For example, the report on Japanese early child training by Mildred Sikkema (1947) casts serious doubt on Gorer's (1943) observation of strictness in toilet training and of disinterest in food among the Japanese. Flaws of observation are perhaps most strikingly exposed by Li An-che (1937) He notes that in several ethnographic reports Zuni child rearing is characterized as indulgent and nonchastising As he shows, however, this is a misleading formulation It is true that no single adult has the extensive moral control over the child that a parent has in our culture. But there is a diffusion of authority rather than a lack: the child is, in fact, surrounded by adults each of whom expects conformity and punishes any deviation from the elaborate code of etiquette And, should no adult be present, there are omnipotent supernatural agents whose anticipated punishment is much more severe.

Although she includes Li An-che among her sources, Goldfrank (1945) does not successfully bring his insights to bear on her interpretation of the psychological meaning of Pueblo child-rearing systems She observes that Zuni and Hopi parents often scold and threaten punishment, but they seldom carry out their threats Moreover, before a baby is put on anyone's back it is whipped four times on its buttocks with a bit of yucca The feeding of infants is often accompanied by a voiced prayer in which the mother anxiously requests the indulgence of gods and ancestors And yet, in spite of these and numerous other quoted instances of anxiety induction in the earliest years, Goldfrank characterizes the child care as warm and indulgent She speaks of the "contradiction" between the presumably contented Pueblo childhood and the apprehensiveness and maladjustment of Pueblo adults, and asserts that "it is eminently clear that a study of the period of infancy (read "early childhood," since she includes the first several years) alone would give few clues to the personality structure exhibited by the Pueblo adult" (1945, p. 536) Later developmental periods do increase and structure the anxieties of these individuals, but the lack of "clues" in early childhood seems more the product of a failure in interpretation than of a lack of data

Despite the very great difficulties that must be overcome by further research on the problem, exploration of the determinants of modal personality patterns continues to be a substantial and challenging need The search for such determinants, however, clearly assumes the existence of modes in the adult population of given societies — something of which we are not at all sure. In any event, the search will probably be greatly advanced, and certainly placed on a more secure footing, if the adult modes — the determinants of which are sought — can be specified with greater precision and their presence ascertained with more reliability than has commonly been the case in the past. This, of course, helps underline the crucial importance of the development of *methods for assessing* modal personality structure discussed earlier.

THE ROLE OF NATIONAL CHARACTER IN THE FUNCTIONING SOCIAL SYSTEM

Up to this point we have attempted to define modal personality, to explore methods for its assessment, and to consider the role of culture and social structure in its determination. We turn now to an examination of the role of modal personality patterns in the functioning of social

systems. To demonstrate the relevance of personality to normative social behavior on the most general level, we shall begin by exploring its relation to individual role performance. We shall then consider the relation between modal personality patterns and the functioning of specific societal systems.

THE ROLE OF PERSONALITY IN SOCIAL CONTROL

Clearly, before one can affirm that *group* personality *modes* have relevance for the functioning of the total societal system, it is necessary to establish that there is a meaningful connection between the *individual's* personality and the behavior required of him by virtue of his membership in some social organization. The individual's participation in any society occurs via membership in a series of more or less explicitly defined "status positions" in the social system — e.g., father, employee, Catholic, old man. Each of these involves a series of expected behavior patterns which we call the characteristic "role" of the individual occupying the status position. The crucial feature of this expected behavior is that it is tied into a network of reciprocal relations with other individuals in related statuses within the given institution or societal system. The failure of any status holder to fulfill his role requirements will make it difficult for other participants in the particular "system of social action" to fulfill their roles. Minimally this will lead to strain, and maximally it may produce so serious a disruption of the established pattern of mutual expectations as to cause the breakup of the total relationship network.

A variety of mechanisms ensure that individuals in particular status positions will produce the requisite behavior at appropriate times. Most apparent is the fact that societies train individuals for the status positions that they are likely to hold. This training may be formal and specific, as in the preparation of an individual for a particular occupation. But more important, perhaps, is the less formalized instruction and indoctrination which takes place during the socialization process in infancy, childhood, and adolescence. One major aspect of the socialization process is the individual's relationship with a series of important role models — father, older sibling, teacher, etc. The internalization of the relevant values and the learning of the appropriate behavior patterns manifested by these models furnishes the growing child with a repertoire of basic social roles. But whereas this training provides the knowledge of appropriate behavior on the part of status holders, it does not automatically ensure that the requisite acts will be forthcoming. Indeed, all social systems include certain additional instrumentalities for inducing socially appropriate behavior. Perhaps the most important of these are *social sanctions*.

Broadly defined, sanctions represent the rewards and punishments allocated to group members by other individuals and the group at large in consequence of adherence to or departure from the behavioral norms prescribed by the group. Positive sanctions or rewards range from approval and prestige to material possessions and consumable goods. Negative sanctions or punishments range from the application of physical force to forms of pressure such as shaming or otherwise threatening the self-esteem of the deviant. If the great majority of individuals in any society learn to aspire toward the proffered rewards, and to avoid the threatened punishments, then the behavior appropriate to given roles will generally be forthcoming and the functioning of the system as a whole will thereby be ensured.

The above statement assumes the operation of certain general *psychological processes*, in particular, learning, but it does not systematically introduce *personality* traits or constellations as variables affecting the efficiency of social sanctions and hence of role performance. We propose, however, that personality traits may and indeed regularly do enter into the effectiveness of sanctions and hence into general system functioning.

Character and negative sanctions. To begin, let us consider nonphysical negative sanctions such as shame and ridicule. The capacity to develop these feelings is presumably a potentiality in all humans, but their development in any given individual is dependent on the socialization process. This potentiality may be more fully or less fully realized in particular individuals. Moreover, the feelings themselves may have little or great effect on the individual's sense of self-esteem. The *effectiveness* of negative sanctions such as shaming, ridicule, or charges of immorality is dependent on the individual's readiness to feel shame, ridiculousness, or guilt, and on the association between such feelings and the sense of self-esteem. Consequently, the degree of readiness to experience these feelings and the extent of impact such feelings have on self-esteem become a variable personality trait which will influence the effectiveness of specific types of social sanction.

Insofar as the *individuals* in any society may vary in their readiness to experience shame, guilt, and ridicule, it is at least to be considered

that such readiness might vary significantly between the *populations* of different societies It is clear that cultures vary greatly in the emphasis placed on shaming, ridiculing, or invoking moral principle as means of social sanctions Indeed, so marked are the differences that some anthropologists have classified cultures as "guilt" or "shame" cultures. There is some psychological evidence that the individuals in such cultures have modally differential dispositions to feel or be affected by guilt or shame (Leighton and Kluckhohn, 1947; Piers and Singer, 1953) Dicks' (1952) comment on Russian character and La Barre's (1946) observations on the Chinese also point strongly in this direction, as do a good deal of clinical data on our own population. In his analysis of contemporary Russian behavior, Dicks noted that "the classical phenomenon of Russian behavior" remains the introjection of aggression-guilt under pressure It is to this readiness "to share in, or be aware of, offences in oneself against the demands and loyalty to the group" that he attributes the apparent vulnerability of the Russian to public shaming, confession, and recantation. It is also suggestive that in China, where the threat of loss of face in all its myriad ramifications is so central as a sanction, at least one observer (La Barre, 1946) concluded that "the sense of sin is nearly absent"

Tentatively, therefore, we make an initial hypothesis on the relation between modal personality and social structure *the effectiveness of any system of social sanctions is dependent on the presence of appropriate psychological constellations in the members of the social system.* According to this hypothesis, social systems that emphasize guilt, shame, or ridicule as sanctions will require for effective functioning that their members show *as a characterological trait* relatively high readiness to experience and to suffer loss of self-esteem from feelings of shame, guilt, or ridiculousness The average individual from a society that emphasized shame would be expected to be less conforming if he were transferred to a society emphasizing a different sanction — such as withholding love. In comparable fashion, an individual socialized in a "conditional love," guilt-inducing system could not readily be controlled in a society emphasizing shame or ridicule.

Character traits and positive sanctions. Turning now to a consideration of *positive* sanctions or rewards, we may expect to find relationships between personality and conformity similar to those just discussed. The effectiveness of positive sanctions clearly depends on the motivation of individuals to attain the rewards offered. For our purposes we shall use the term "social aspiration" to represent the propensity of individuals to pursue goals or to seek to achieve values defined by their culture as legitimate and important As such, social aspiration is a universal psychological process and in itself involves nothing specifically characterological.

There are, however, two levels on which a connection between social aspiration and traits of character may be established. In the first place, psychological traits may act directly to affect the *strength* of given aspirations. Consider, for example, the Sioux society, which places heavy emphasis on achievement in the role of warrior and hunter. As Erikson (1945) has noted, the presence of large amounts of undischarged aggression and the absence of strongly internalized sanctions on aggressiveness in the individual help to maximize the intensity of his desire to fulfill the cultural role model. In other words, his personality characteristics affect the strength of his aspiration. One would expect a Sioux child without such aggressive propensities to be an undistinguished warrior and unlikely to become the leader of a war party. Indeed, if the level of aggression were low enough, or the internalization of sanctions against aggression strong enough, such an individual might well reject the role of warrior and become a deviant in his society. Similarly, a Hopi, trained to repress aggression and to see its manifestations as threatening, would, if transferred to Sioux society, probably lack the aspiration to adopt the warrior role

On a second level, that of *instrumental adequacy,* psychological traits may act more indirectly to affect social aspirations Given the nature of the social aspiration and the situation provided by the culture for the attainment of a given goal, certain traits of character may increase or decrease an individual's adequacy in striving for the goal. Consider, for example, a society in which prestige is a major social aspiration, and where prestige is achieved through the acquisition of certain types of physical property. In this situation, the ability to postpone gratification, and the tendency to be penurious and ungenerous, would clearly increase one's chances of acquiring the physical possessions essential to the attainment of the prestige goal. Furthermore, it is clear that individuals whose characterological propensities spontaneously lead them to retentive behavior would find the instrumental actions of property accumulation gratifying in themselves. Thus, the presence or absence of a character trait such as retentiveness may serve as an intervening variable to determine the extent to

which two individuals with the same strength of aspiration will be differentially effective in their goal strivings (cf. Fromm, 1941).

Traits of character may be seen, then, as having substantial relevance for the internalization of culturally preferred goals, for the intensity of aspiration to achieve them, and for the ability to fulfill their inherent instrumental or action imperatives Further, insofar as the relevant traits of character are *modally* present in the population of any society, the chances are increased that culturally and structurally important goals will be aspired toward and implemented by the society's members, thus in significant degree ensuring the continued effective functioning of the social system.

PERSONALITY AND INSTITUTIONAL FUNCTIONING

We have sought to indicate that personality is relevant to the effectiveness of social sanctions and enters directly and indirectly into social aspiration, affecting the individual's acceptance of and performance in social roles Since an institution may be conceived of as involving a system of role relationships, we may also expect personality to enter systematically into the functioning of institutions.

Occupational roles. We may profitably begin with a consideration of occupational roles, because the required behavior tends to be fairly specific and to be applied to a relatively limited number and type of situation. As Everett Hughes (1929) has pointed out, the relation between personality and occupation is fairly obvious in the case of certain "professions" in nonliterate societies, such as medicine man, charmer, or performer of rituals. In larger and more heterogeneous societies, and particularly in industrial countries, the elaborate division of labor, the emphasis on what Parsons calls "universalism" and on technical efficiency, and the fortuitous character of job placement all combine to obscure the relationship. Nevertheless, as Roe (1947) indicates, it still exists and is clearly evident in extreme cases She points out, for example, that a man with claustrophobia would not work as an elevator operator or as a coal miner, and that someone with a mild obsession about dirt is likely to make an excellent scrubwoman.

Although there may be a clear connection between certain extreme personality traits in particular individuals and their occupational placement, can we establish an important relation between a broad occupational category and a particular set of personality variables? Consider for a moment the position of librarian in our society. The activities required of a librarian put a premium on order, discipline, punctuality, neatness, precision, and control over the expression of affect The librarian not in an administrative position is expected to be subdued, quiet, polite, respectful, helpful, sensitive, etc. Clearly, one may anticipate that individuals with a forceful, outgoing, overtly expressive personality, those who are active, striving, and masterful, or those who incline to be undisciplined, disorderly, or untidy, would not be maximally adapted to the requirements of this occupational role.

We suggest, then, that certain occupational positions may attract individuals of one type and repel or fail to attract those of other types Further, the strength of certain personality traits may influence the individual's adaptiveness to the demands of particular occupational roles Unfortunately, there has been relatively little research on this problem, although some of the initial results are suggestive For example, it appears that life-insurance salesmen are relatively homogeneous on the dimension "dominance," and several other occupational groups manifest distinctive homogeneity in regard to other traits (Komarovsky and Sargent, 1949, Roe, 1947) Since the evidence is so limited, however, we can only suggest the potential relevance of personality components for performance in those *particular* occupational roles that require such specific overt behavior as to permit specification of relevant distinctive psychological correlates

Insofar as a particular occupation demands highly specific behavior patterns and emphasizes distinctive types of orientation, we may expect that different national groups with different modal personality structures will adapt differentially to the general demands of the specific occupational role. Modern military organization, for example, everywhere emphasizes precise differences in status and power, the exercise of marked authority and the exaction of unswerving discipline, orderliness and calculability, hardiness and virility, and group solidarity. G. D. Spindler (1948), in comparing the orientation of Germans and Americans to these generalized demands of the military situation, finds important differences in emphasis which he relates to differences in American and German male character. For the American precise differences in status are a source of discomfort, since they challenge his conception of himself as an equal, as an individual who will be valued for his personal qualities and on the basis of those alone. As a result, in many American military situations status differences become

obscured. In contrast, the Germans are described as manifesting a strong interest in status, and as being most comfortable in relations where status is precisely defined Correspondingly, status distinctions are always kept unmistakably distinct in the German military. Although Germans value orderliness and calculability, these are much less emphasized by the American military, who give greater stress to criteria of "efficiency" Authority and discipline are infinitely more demanding and rigorous in the German Army, because the American values the self and sees obedience to authority as essentially ego-humbling Spindler notes in this connection that the American family situation inculcates an expectation that conformity is required to retain parental love The experience of control through love, he points out, does not prepare the individual as well for submission to authority as does the experience arising from life in the German family, where there is a heavy emphasis on discipline in response to stern male parental authority

Political structure Moving to a still broader area of institutional involvement, we may briefly consider another example which brings out the relevance of modal personality configurations for the functioning of major institutional patterns — in this instance the political structure (cf. Leites, 1948). Erikson (1950, Chapter 8) holds that Americans manifest, as a kind of character trait, a strong emphasis on the principle that there accrue to each individual in a group "claims for future privilege on the basis of one's past concessions" He sees this basic assumption as arising out of a distinctive family milieu. In contrast to the family in most European cultures, the American family is not divided into unequal partners, cleaving on the line adult-child, male-female, younger-older sibling, but rather is one in which each and all are regarded as having rights and interests equally to be protected. The family then becomes "a training ground in the tolerance of different interests." Erikson sees a relation between this family pattern and the two-party system in America, which he describes as "a rocking sea of checks and balances in which uncompromising absolutes must drown" He suggests, further, that there may be a relation between the emphasis in the family on doing what is least unacceptable to any one member (as against doing what *all* want), and the operation of Congress. For he observes that in Congress the possibility that good legislation may fail to pass is of less concern than the possibility that some legislation will be passed that is markedly *unacceptable* to some major group because it negatively affects their vital interests.

Erikson treats this pattern largely in terms of an analogy, but it can be phrased more formally in terms of the relation of personality to social institution. Clearly, a personality type attuned to handling authority relations and conflicts of interest not in terms of compromise, but rather in terms of absolute principle, of greater right, authority, or power, would find the particular American pattern of political action difficult to adjust to and perhaps even relatively intolerable Indeed, it has been suggested that a major contributing factor in the fall of the Weimar republic was the inability of large numbers of Germans to tolerate the necessity for political compromise required by the system of democratic government instituted after World War I

PERSONALITY MODES AND TOTAL SOCIETAL SYSTEMS

We have considered the relevance of personality for particular occupations which involve only segments of any population, and its role in broader areas of social action such as political institutions, which to some degree affect all the members of society The next level of generalization involves the relevance of traits of character to the large-scale social system in all its major ramifications To transform a statement of Ralph Linton's (1949, p 164) into a question· In every society are there people of a sort who, had they come into the society from the outside with their personalities already formed, would have found it easy and pleasant to learn the society's ways, to accept its values, and to become respected citizens?

There has apparently not yet been an attempt to state a set of basic personality traits requisite to the functioning of *any* social system (cf. Aberle *et al.*, 1950). Traits generally important for the functioning of certain *types* of societal system have, however, been posited For example, Weisskopf (1951) has attempted to specify the character traits associated with industry, the market system, and "mass civilization" Fromm (1941, 1949) has declared that discipline, orderliness, and punctuality are personality requirements for an industrial society Kardiner (1945a) has stated that a Comanche would not be psychologically attuned to a system with a high degree of differentiation in function such as characterizes a modern industrial society. Further, Erikson (1945, p. 327) has designated a syndrome of traits "necessary for the functioning of a hunter democracy" such as Sioux society These include a "combination of undiminished self-confidence, trust

in the availability of food supply, and ready anger in the face of enemy interference," along with generosity within the tribe.

If we are willing to assume the presence of certain modal personality constellations in various societies, we are, of course, precipitated into consideration of the *types of interrelations* between modal personality and social system. The first relation to suggest itself is one of perfect congruence between the modal personality structures in the population and the requirements of the social system. Posited as an ideal type in Weber's sense, and not in any evaluative sense, this pattern will be termed "ideal congruence." We have every reason, however, to expect to find various types of departure from this model. In the following pages we shall discuss three additional types, which we term "unstable congruence," "institutionally induced noncongruence," and "characterologically induced noncongruence." Each of these types will be illustrated with materials drawn from the literature on modal personality structure. Although the illustrations will be chosen predominantly because they exemplify the relationship types posited here, we hope they will also convey something of the range of content and emphasis in the literature on modal personality patterns.

Ideal congruence. This pattern involves high compatibility between the role demands associated with important status positions in the social system, and the personality constellations of the individuals who must act in those roles. The two are *congruent* to the extent that the individual can utilize the available opportunities with adequate gratification, and can accept societal demands with minimal pain and anxiety or, more likely, with considerable pain and anxiety that are kept from becoming disruptive by means of both internal and external control mechanisms. It should be noted that the modal personality structures may show many signs of pathology and ego impoverishment, and at the same time be congruent with the social structure. For example, the prevailing religious beliefs and values may, in conjunction with the modes of child rearing, contribute to the widespread development of constricted, impulse-alienated egos. Such personalities may, however, be able to adjust adequately in an external sense if the society can absorb them within appropriate adult roles and contexts (e.g., prison guard in a "custodial" prison). Thus, a given personality syndrome may be "normal" in the modal sense, and yet contain many pathogenic features. Fromm (1944) has used the term "socially patterned defect" in this connection.

The concept of congruence figures prominently in the presentations of several authors who seek to relate modalities in character to social structure. For example, Fromm (1941, p. 284) speaks of a situation in which the "social character" acts as a force "cementing the social structure." He notes two aspects of this situation. From the point of view of the individual, his (social) character leads him to act as his social role requires him to act or, as Fromm phrases it, "man develops those traits that make him desire to act as he has to act" (p. 283). At the same time, he finds this action psychologically satisfying. From the point of view of social process, Fromm continues, the function of social character is that it "internalizes external necessity and thus harnesses human energy for the task of a given economic and social system." Parsons (1949) has developed a very similar formulation. He emphasizes that the structure of the social situation and particularly the maintenance of institutional patterns are dependent on the stability of the motivational structure of the members at large, and asserts that therefore "a cardinal fact about institutional behavior is that the integrated 'self-interested' elements of motivation and the disinterested moral sentiments of duty tend to motivate the same concrete goals" (p. 311).

Traditional Chinese society suggests itself as *the* large-scale social system to illustrate "ideal congruence" posited here. Traditional Chinese society persisted for more than a thousand years without fundamental change in the central structural features of the system. One of the central elements of its social structure is the distinctive Chinese extended family. The related value and behavior system, which Hsu (1948) has termed the "big-family ideal," emphasized filial devotion and motivation to uphold the ancestral line, and involved the individual in a large and complex network of interlocking social obligations and mutual dependencies based on what Parsons calls "particularistic" criteria. Associated with this pattern was an exceedingly relativistic system of morality — at least in the sense that not abstract moral principle but rather the concrete family obligation governed important decisions involving major alternatives of action. Oriented to the past, the system did not encourage competition or striving, except perhaps competition *within* the family to excel in the fulfillment of family obligation, and competition *outside* the family to exceed in upholding and extending family ancestral honor.

Although Chinese society has been extensively studied, there is virtually no systematic psycho-

logical data on Chinese personality and character, and not much more in the way of even general observation and analysis. However, Weston La Barre, on the basis of personal experience in China, has attempted a description of Chinese character structure that may throw light on the way in which modal personality and social structure were integrated in traditional Chinese society. He summarizes the character structure of the average Chinese as follows·

> . they lack any strong visceral disciplines such as are so insistent and strong in the "Protestant ethic" . . . The internalization of the superego is weak, the sense of sin nearly absent. The id demands almost uniformly secure undeterred physiological gratification, and libidinal tensions are low The ego is sturdy and reality oriented in the direction of the physical world, but in the patriarchal family it is relatively thin skinned in its response to the human world The average Chinese is cheerful, dignified, discreet, poised, unanxious, proud, secure, realistic, and kindly (1946, p. 380)

The direct relationship between these traits of character and traditional Chinese social structure is perhaps not immediately apparent. Certainly one is inclined to be cautious about some of the rather sweeping generalizations which La Barre hints at For example, although he puts it in the form of a question he appears to suggest that the idea of power is "unfamiliar" to the Chinese because they "lack all visceral tension and disciplines" (p. 394) This hardly seems a question to be posed until one is reasonably convinced that the idea of power is indeed uncongenial and unfamiliar to the Chinese, a conclusion on which some recent events cast doubt

Nevertheless, La Barre's analysis is suggestive Extreme striving and competition, as has been indicated, must be kept within strict limits in the interest of preserving the internal structure of the Chinese family and the general social system. Certainly the absence of visceral tensions of the type so notable in the Protestant ethic would contribute to minimize the propensity toward such striving and competitive orientations, as would a weakly internalized superego and high gratification of id demands. The ability to subordinate the self to the family and to accept the exceedingly diffuse obligations it imposes would be enhanced by what La Barre terms the Chinese's "superb oral hold on life." La Barre has further drawn on this orality to explain socially patterned behavior: "Profound satisfaction of the earliest of the great human appetites has brought a willing and unquestioned love of their traditional culture values. The Chinese are traditionalists partly because they really love their parents" (p. 375). Finally, it might be noted that the allegedly relativistic, family oriented morality could be supported by the weak internalization of superego and the absence of a "sense of sin," as well as by the sturdy ego structure with its reality orientation to the outside world combined with sensitivity to family pressures.

In spite of the limitations imposed by our lack of knowledge concerning Chinese personality modes, the example of China puts us in a position to stress two possible misconceptions about the "ideal congruence" pattern of personality mode and social system The ideal type does not assume that the individuals in the society, whatever their personality, will function in all their roles without strain Neither does it assume that the system operates without the necessity for the application of strong social sanctions It does assume, however, either that the strain experienced by the individual will be kept under sufficient control to ensure adequate role functioning, or that deviance will be expressed in a manner not disruptive of the social structure — and optimally, that the deviance will be expressed in a manner that is essentially *supportive* of the system Thus, relatively *extreme* competitiveness in an individual living in traditional Chinese society would not be disruptive if it could be channeled into competition in excelling in the fulfillment of obligations within the family, or focused in the outside world on activity designed to increase the prestige or wealth of the family. Furthermore, the ideal type assumes that where personal deviance cannot be channeled to serve the system, there will be sufficient sanctions to prevent or contain the effects of behavior potentially disruptive to the established system Certainly the social structure in China would appear to be ideally constituted in this respect, because the central role of the family in the social system makes the individual fully dependent for both his physical requirements and his psychological needs of prestige, status, and self-esteem on the extended family system. To cut himself off from the family was essentially to cut himself off from society, and to put himself in a position where every man's hand might be, and indeed often was, turned against him.

Unstable congruence. We speak of "unstable congruence" where there is a relatively enduring social system, but one characterized by a high potential for explosive social change or widespread personality aberrancy arising predominantly from the nexus of interaction be-

tween modal personality types and social structure. In other words, although there is a rough working compatibility between the structure of role patterns and the modal personality types, the individuals in the society experience serious strains through, or residual to, their role performance These strains are sufficient either to threaten the personality integration of the participants, or to impel them to seek resolutions through social action which will seriously disrupt or alter the existing social structure. Further, the instability is generated spontaneously through the development of potentialities *inherent* in the situation; it does not result primarily from the introduction of new *characterological types* or new *institutional forms* brought into the social system from without by conquest, rapid culture borrowing, etc.

In Fromm's terms, the social character no longer is a "cement" for the social structure, but rather becomes an "explosive" force within it. The situation is illustrated on the most general level in Fromm's (1941) discussion of character and its relation to social structure under capitalism. He sees the structure of modern society as making man more independent, self-reliant, and critical, and these traits are considered adaptive both for capitalism as a system and for the individual living in capitalistic society. But simultaneously with his increasing freedom the individual in capitalist society becomes more isolated, alone, and afraid. From the individual in this state Fromm anticipates an inherent reaction, namely, a propensity to search for a new security. The individual is thus driven toward that "escape from freedom" which leads him to respond positively to authoritarian and totalitarian pleas offering him authority, certainty, group belongingness, and purpose even if at the sacrifice of his self-reliance, freedom, and critical faculties

At the level of national states, perhaps the best example of "unstable congruence" is Germany of the Weimar Republic Although hardly a pure type, since the Weimar Republic might be regarded as a new institutional form imposed on an existing character structure, the German situation does, in general, fit the model. The case is of special interest, furthermore, because more has been written about German national character than about any other modern national group (Brickner, 1943; Dicks, 1950; Erikson, 1942, Fromm, 1941; "Germany . . ." 1945; Levy, 1948; Lewin, 1948, Parsons, 1949, Rodnick, 1948; Schaffner, 1948). Despite the extremely wide range of interest and background of the individual commentators, however, there is a surprising degree of agreement in their formulations of the central features of German national character. The general trend is summed up by Henry Dicks (1950, p. 139):

> The picture is mainly one of an ambivalent, compulsive character structure with the emphasis on submissive/dominant conformity, a strong countercathexis of the virtues of duty, of "control" by the self, especially buttressed by re-projected "external" superego symbols In this norm-bound, burdened pattern there occur episodic "release" symptoms Individually they are attacks of rage, as when "unauthorized" encroachments are made on the jealously guarded ego-core. The release symptoms on the group level we have witnessed between 1864 and 1945 Group outbursts are exculpated chiefly by projective mechanisms . courage is drawn for those aggressive outbursts from group sanctions in joint loyalty to a good superego leader figure (Bismarck, Kaiser, Hitler) who takes responsibility and so incidentally shoulders the guilt of failure.

The last point in Dicks' presentation is of special importance, for the alleged tendency to surrender to a particular type of authority figure — given impetus in Weimar Germany by defeat in war with its consequent loss of territory, power and international prestige, and by depression with its effects on personal income, status, and familial authority — has in the literature been most widely used to explain the appeal of Hitler to Germans As Erikson (1950, p 293) has phrased it, there is in Reichs-German character a propensity "to approach with blind conviction, cruel self-denial, and supreme perfectionism many contradictory and outright destructive aims." According to this analysis, Hitler presented himself in an image which permitted the expression of these propensities through the projection onto him of responsibility for the consequences, at the same time satisfying frustrated needs for the expression of status and dominance-submission drives Fromm (1941, pp. 236-237) has made this point as well, stating.

> A hierarchy was created in which everyone had somebody above him to submit to and somebody beneath him to feel power over, the man at the top, the leader, Fate, History, Nature above him as the power in which to submerge himself. Thus, the Nazi ideology and practice satisfies the desires springing from the character structure of one part of the population and gives direction and orientation to those who, though not enjoying domination and submission, were resigned and had given up faith in life, in their own decisions.

Fromm's last sentence is particularly to be noted, because it suggests that the same social

movement may gain support from different groups in the society which have diverse personality modes It also happens that individuals in a given national population with relatively the same modal personality may for situational reasons support rather different and even conflicting social movements. This poses an important problem for the establishment of any general theory on the relation of modal personality and the social order

Institutionally generated noncongruence In this situation there arise institutional changes so marked that the society's relatively well-established and internally stable modal personality types experience serious strain in meeting the new role demands made on them This does not imply that such strain will arise whenever major institutional change intrudes into a situation of well-established integration of personality mode and social system. On the contrary, much formal institutional change, even of strategic importance from a structural point of view, may take place without resulting noncongruence This will be the case where the pattern of institutional change continues to provide roles that, however new their content, are yet compatible with the basic personality orientations in the population Consequently, even under conditions of extremely rapid acculturation one need not necessarily expect institutionally generated noncongruence Thus, one may assume that in an Indian tribe in which competition for prestige is prominent and this competition is closely associated with the acquisition of property through trading, saving, etc, the intrusion of the American white pattern would be much less disruptive than it would be for a warrior democracy like the Sioux (see Erikson, 1950).

Among modern national states, probably the most striking example of large-scale institutional change generating noncongruence between modal personality type and social system is found in the Soviet Union. As in the case of Germany, the special role of Russia in current world affairs, particularly in relation to the United States, has made it the object of extensive comment in studies of national character, among the more notable being those of Dicks (1952), Erikson (1950), Gorer and Rickman (1949), and Mead (1951a). Again as in the case of Germany, despite important differences in the characterization produced by these various authors, differences which must unfortunately be neglected here, there has been a rather impressive and striking degree of agreement among them. This applies both to their characterizations of traditional Russian character and of the impact of the Soviet system upon it. We shall restrict ourselves to outlining briefly some of the main elements of Dicks' presentation, in part because his is the only available commentary based on extensive and systematic study of individuals.

Among the characteristics that Dicks attributes to Rusian national character are extreme mood swings, impassiveness, apathy, and a sense of futility, the felt need for an external restraint combined with a deep-seated feeling of the essential arbitrariness, harshness, and distance of authority figures, the introjection of guilt, and so on Most important from the point of view of our discussion, however, is Dicks' treatment of Russian character as essentially an oral type, with exceedingly strong drives for loving protection and security, oral gratification, and warmth and spontaneity in interpersonal relations. Moreover, Dicks stresses that there is a conspicuous absence in Russian character of those traits that have given their stamp to modern Western social behavior "the whole complex connected with the acquisition and husbandry of property, methodical orderliness, neatness, punctuality and regularity of procedure, habit and protocol; emphasis on personal hygiene and sensitiveness to dirt, odors, and disorder; need for privacy and seclusion . . ." (1950, p 140).

The personality type represented by the traditional "oral" Russian peasant may indeed have been well attuned to a village-based, communal type peasant economy, set in a large and sprawling bureaucratic state characterized by laxness, inefficiency, ineffective centralized controls, etc. The Russian revolution and the ascent of the Bolsheviks led to the imposition from above of a radically new social order. The new government attempted rapidly to institute large-scale industrialization, to reorganize agriculture along "factory" lines, and to establish an elaborate governmental apparatus dedicated to principles of efficiency, planning, and extreme political controls. Essentially, therefore, the population with the traditional "oral" Russian character structure was shifted to a new social order which maximized demands for order, punctuality, precision, regularity, discipline, hierarchical authority, etc An added complication was contained in the characterological propensities of the Bolshevik elite, which manifested a strong need "to mold and master material, including human vagaries, to impose rigid control, to be rational, contained, orderly . . . to achieve punctuality, order and 'output' of production" (p. 141). This elite, with its essentially "anal" character propensities, laid

great stress on cheerfulness and the virtues of sobriety, punctuality, discipline, and avoidance of waste. It carried forward its program of social change in the shortest possible time span, under extreme self-imposed pressures, and with relative harshness and unconcern for private interests and welfare

In assessing the Soviet situation, Dicks states: "It is in the sphere of internal and especially political and economic pressure on the individual occasioned by the pursuit of the Party goal, that the chief tensions appear to occur between the official and private goal orientations of a proportion of Russians" (1952, p. 123). By implication, a major contribution to this conflict, and to the observed malaise felt by so many former Soviet citizens in response to the Soviet system, stems from the incongruence between the demands of the system and the characteristics of the leadership, on the one hand, and on the other hand the traditional modal personality constellation in large numbers of Soviet citizens, in particular the Great Russians who constitute about half of the population.

Characterologically induced noncongruence In this case, a fully-elaborated and relatively stable modal personality type is introduced into an already established institutional order with which it is not compatible. Clearly, this type resembles in many respects what we have termed institutionally generated noncongruence. In the case of characterologically induced noncongruence, however, the newly introduced element is a modal personality type rather than an institution, and the analytic focus is on what happens to the institution rather than to the participating individuals. Thus, the strains experienced by the relaxed "oral" Russian when a strict "anal" leadership rigorously imposed a bureaucratic, rigid industrial order in Soviet Russia may be viewed, when the focus is on personality, as *institutionally* induced noncongruence. But when the focus of interest is on the factory as an institutional form, then the resultant malfunctioning of Soviet factories may be termed an instance of *characterologically* induced noncongruence.

Insofar as total societies are concerned, characterologically induced noncongruence probably exists as a pure type only in hypothetical situations. It would probably exist in pure form if all the members of some on-going society were quite suddenly removed and replaced by another population with a different personality structure, who would then step into the relevant status positions and carry on in the socially defined roles. On the level of empirical reality, the situation we term characterologically induced noncongruence is roughly approximated in those instances where important positions in an existing social order are taken over by conquering war groups, as in the Mongol invasions of Russia and China. It is also roughly approximated when in an established society there is a heavy immigration of a personality type or types significantly different from, and yet numerically more numerous than, the type which originally gave rise to the system. In modern times the most striking example of the latter situation is to be found in the United States. The waves of immigrants from Germany, Italy, Ireland, and Eastern Europe meant the introduction into the United States of new personality types who took up established status positions in the structure of a system presumably more or less uniquely attuned to the psychological "products" of British culture The adjustment process has stimulated extensive comment, although the predominant assumption has been that the institutional pattern has been stable while a new character type emerged (Gorer, 1948; Mead, 1942). What some feel to be the imminent transformation of American society — particularly in regard to the emphasis on freedom of thought and conscience — may be related to the relative weight in the social system of these new characterological types, particularly as represented in the children of the immigrants.

The concept of characterologically induced noncongruence does, of course, have wider applicability if one focuses on some particular role within the social structure into which regularly there step personality types developed in and better attuned to other role positions in the society Where this is thoroughly institutionalized the resultant tension is usually characterized as "structured strain," a situation which may be illustrated in a wide variety of situations and societies. For example, the Comanche warrior trained to the show of aggression and the exercise of leadership does not find congenial the role of the aged with its demand for relative passiveness and dependency. Or at the other pole, the young middle-class American, rigorously trained in moral absolutes and probably taught by rote, may find disturbing the freedom of thought and the conflict of ideas of the University Frequently, such structured strain is followed by highly patterned deviant responses, and it is no surprise that at such points in the system sorcery, witchcraft, etc., or compulsive conformity or nonconformity, are often localized. Frequently such strains, when recognized, are described merely as "role conflicts."

This may obscure the fact that the strain derives not so much from the incompatibility of the demands made by the roles — often sequentially held — as from the incompatibility of a personality type well attuned to one role yet poorly adapted to another The personality types, however, are new only to the specific role and not to the social system, and indeed are well adapted to other standardized roles in the society The problem might, therefore, be held to fall more appropriately in the area of cultural integration than in the category of characterological noncongruence.

There is virtually no literature on change in gross institutional systems resulting from the intrusion of new personality types Further, although the work of Spindler (1948) on differential adjustment to the military role points the way, almost nothing has been done to study changes in "standardized" organizational forms such as the factory, the prison, the school system, as they are adapted to the demands of different personality modes in different environments These problems remain, therefore, as major areas for future empirical study of the relations between personality modes and social structures.

Concluding Observations

The central focus in the majority of studies concerned with modal personality structure has been either on delineating the personality modes or in exploring the sociocultural determinants of those modes. In addition, modal personality has on occasion been treated as expressive of a given culture or social structure With few exceptions, however, relatively little attention has been given to examining the impact of modal personality on the cultural heritage or the social structure of the societies studied In this concluding section we propose to examine both some of the general problems posed by the effort to trace the role of modal personality patterns in sociocultural systems, and some of the specific difficulties that have arisen in connection with those efforts.

The initial and most trying difficulty facing any effort to relate modal personality, as commonly defined, to social structure or culture stems from defects in the definitions of modal personality. As we have indicated, most descriptions of modal personality are not statements about the personality traits present in the adult members of the society, but rather are statements about *infant and child care disciplines,* or the *institutionalized* behavior of individuals acting in their social roles, or the *collective documents* characteristic of the given population. We have already cited Margaret Mead's (1951b) reference to the "circular system" of conditions within which a given modal personality develops. Clearly, insofar as these elements — methods of child rearing, types of architecture, political systems, etc — are *part* of social structure or culture, then to define character in terms of any one of them is merely to relate one element of culture or social structure to another. When the posited character structure is related back to the sociocultural phenomenon from which it was derived, then the correspondence of the two phenomena is given by definition Even when the derived modal personality pattern is related to some element of culture or social structure other than the one from which it was derived, it is not personality and some element of culture or social structure that have been related, but rather two elements of culture. In other words, this procedure is a test of the integration of the culture, and not of the congruence of personality and culture.

The projection of cultural themes and institutionalized behavior onto personality is perhaps only slightly more prevalent than the projection of character onto culture and social structure That is to say, characteristics are attributed to the culture or social structure not on the basis of independent measures of what exists, but rather on the basis of what one should *expect* in the sociocultural realm judging by the delineated modal personality For example, Gorer (1948, p. 96) states that the older son in the American family is expected to get his younger brother out of scrapes, this leads the younger brother to believe that he may behave irresponsibly, secure in the knowledge that his older brother will always get him out of trouble Just so in the American Congress, says Gorer, the "older brother" Senate is more responsible in its political action than the "younger brother" House of Representatives. The analogy posited is on interesting one But it seems fair to suggest that before these two facts are *related,* the *existence* of the facts ought to be independently verified Even assuming that the pattern attributed to the behavior of younger brothers in the American family is an accurate one, what evidence is there that indeed the Senate is more "responsible" than the House of Representatives? The proposition, assuming it to be subject to systematic verification, seems

on the surface so questionable that it suggests a simple projection of individual characteristics onto the political institutions of the society

In short, to establish systematic interrelations between modal personality and cultural or institutional patterns we must measure independently the elements to be related. This requires that statements about modal personality be derived from the study of *individuals* and not from cultural themes or institutional structure, and no less that such themes or structure be derived from data and analysis *independent* of that from which personality modes are derived. To do anything less is to run grave risks of circular reasoning, and certainly to minimize the chances of adequately relating personality to sociocultural structure and functioning.

A second problem, perhaps the most controversial one in this field, concerns the *causal connections* between modal personality and sociocultural matrix. Kardiner (1939) and Róheim (1947) attribute a directly causal role to character in explaining the origin of certain institutions and cultural themes, particularly in the realm of religion, folklore, witchcraft, etc. On the whole, however, the authors in this field tend explicitly to reject the oft-made charge that they interpret social institutions as being "caused" by the characterological traits or propensities of the population of any given society This charge, made rather heatedly by Orlansky (1949), is specifically denied by Margaret Mead (1951b, p 74) and Erikson (1945). Despite these denials, however, many write so as to give the impression they assume a fairly clear-cut causal relationship between national character and certain sociocultural phenomena. Such a relationship seems to be implied in the example cited above from Gorer's study of the American people, and it is an example which could be multiplied both from that source and from his work on the Great Russians (1949) and Japanese (1943). A similar causal connection is more or less explicitly stated in La Barre's work on the Chinese, as in his statement that the satisfactory oral relationship during early personality development "is connected with the magnificent 'sanity' and hardheadedness of the Chinese and their allegiance to the Reality principle . . . ," and with "the genius of Chinese political philosophy" and the alleged absence of aggressive warfare in the history of China (1946, p. 377). We may note, as well, this relatively characteristic comment on social change by Margaret Mead (1947c, p. 239): ". . . if a form of child rearing is found to stand in such a relationship to some other aspect of culture, there is always the theoretical possibility that in a dynamic changing society adoption of such a method of child rearing may be one way of changing the trend of the society."

Most of the institutions in any society will be found to have been present over a period of generations They can, therefore, hardly be caused by the contemporary character of the population in the given society. A direct causal connection can be established only in the sense that the initial manifestation of the character may have caused the original institution or culture pattern to come into being. But such origins are generally lost in prehistory Their exploration, furthermore, rapidly forces the introduction of other explanatory principles Many of the currently existing institutions come to be identified as historical residues from periods when the character of the population may have been radically different. Upon careful study, other patterns are recognized as products of acculturation Still others form a part of complexes that have their own internal structure, and are carried along as part of the larger complex. For example, the modern factory system assumes certain precise differentiations of function and responsibility, hierarchies of authority and technical competence, interpersonal relationship patterns premised on predominantly universalistic criteria, the elaboration of rules of order and procedure, the institution of schedules and other precise time arrangements, etc. Within certain specifiable limits, these patterns go with the factory system wherever it may be introduced.

Our emphasis on the unacceptability of attributing to personality modes a direct causal role in explaining the presence or absence of a particular culture pattern or institutional form in a specific society should not be mistaken as minimizing its role in influencing social structure. On the contrary, we would stress that modal personality structures may be very important in determining what is accepted in an acculturation situation and what is not, or which institutional forms persist in any population and which do not. For example, in the development of the young Alorese food deprivation and anxiety appear to arise from the behavior of the mother *vis-à-vis* the dependent child. The Alorese, furthermore, do display a marked preoccupation with food. In the minds of some analysts it may be an easy leap from these food problems to the custom of sacrifice and the important role of food symbols in the surrounding religious ritual. But as DuBois (1941) points out, the system of sacrifice is a widespread Indonesian custom "and hence

could hardly be caused by food deprivation in Alor." This does not mean, however, that food deprivation experiences have no significance for Alorese society. On the contrary, as DuBois points out, the characterological problems of the population probably give a particular local meaning and special support to the institutional form of sacrifice, which is different from its meaning and support in other Indonesian societies that have the same institution. Stating such a dynamic interrelation between character and cultural themes is, of course, not the same as positing a simple causal relation, although admittedly we do not yet have adequate terms for describing such contributions by particular elements to the functioning of a total system

Even where the positing of a simple causal relationship is carefully eschewed in the national character literature, we often find an assumption of connections between personality modes and institutional patterns on the basis of structural analogies. Erikson's discussion of the American family and the American two-party system, already mentioned, illustrates the general procedure. Such analogies may be exceedingly suggestive, but they constitute a source of hypotheses to be tested and not demonstrations of fact.

Furthermore, there is substantial risk in assuming simple one-to-one correspondence between personality modes and given institutional patterns, because of the frequency with which essentially the same personality orientation may be expressed through markedly different modes of action. In one study on Iran (Ringer and Sills, 1953), for example, it was found that on a large series of psychological traits the extreme political conservatives and the extreme political radicals were much more *like each other* than they were like the more moderate middle-of-the-road groups. It is only on the basis of study of the psychological meaning of participation for the actual participants in any particular sociocultural process that we can with any confidence establish an adequate connection between personality modes and the given institutional pattern.

In short, the literature on modal personality often attributes to modal personality a causal role relative to certain major cultural themes and institutional forms. There is also a tendency to reason by analogy from the assumed personality mode to the structural pattern or functioning of institutions. Probably no other aspect of these studies has aroused as much criticism or as much intensity of feeling among critics from other disciplines — often with the effect that the critics have failed to give serious consideration to the promising insights presented by these studies. Further, the attribution of simple causal connections, with their element of apparent finality, has obscured important problems of the dynamic interrelations of modal personality patterns and sociocultural phenomena

We noted earlier that many investigators assume a single personality mode for the population of any given society, and we have stressed the inadequacy of this approach There is often a matching tendency to describe the culture pattern and social structure as a comparably limited or unimodal phenomenon. We find, for example, little active recognition of what Florence Kluckhohn (1950) has called the "substitute orientation profiles" available as modes of action in any culture in addition to the dominant profiles Further, in the institutional realm, folklore, religion, witchcraft, and comparable complexes have received the major share of attention Although in recent years more attention has been paid to authority relations, the massive economic and political institutional complexes that loom so large in modern industrial society have been relatively neglected

Our final observation, then, is that the delineation of a unimodal personality structure and a simplified, monolithic depiction of culture and social structure often leads, when personality modes and sociocultural phenomena are related to each other, to a comforting but unreal impression of congruence. There may be a "strain toward consistency" in culture, and this may be matched in personality and social structure and in the resultant totality of any given social order. Yet the analyst can hardly abet science if he himself becomes a captive of this strain toward consistency.

The danger of this overly simple view of modal personality and sociocultural phenomena, however, lies not so much in what it leads us to do as in what it encourages us not to do The study of modal personality patterns holds much promise of contributing significantly to our understanding of the functioning of large-scale systems if it can be brought to bear on the level of institutional functioning. The role of modal personality in the operation of social sanctions is only beginning to be understood. Its role in rendering effective or hindering the functioning of the major institutional complexes of society — kinship, structure, social stratification, the economic order, the political system — is yet to be explored in detail. Movements of protest, the rise of elite groups, major programs of social change represent but a few of the major problem areas in which the role of

modal personality patterns should be more fully described and assessed.

As yet most of these exciting problems remain almost untouched. Their analysis requires a rich and diversified description of modal personality trends that takes account of major and minor modes, of the diverse propensities within any given mode, of the conditions that bring these factors into effective play, of the social groups that are characterized by the various modes, and so on. Such analysis also assumes a fully elaborated description of culture norms and institutional structure, one that takes cognizance of their range and diversity, their internal structural imperatives, and their dynamic interrelations. As the complexities of both character and sociocultural phenomena are more fully acknowledged, conceptualized, and carefully described, we may anticipate major progress to be made in analyzing the ways in which personality modes enter systematically into the functioning of social structures and the coherence of culture patterns.

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Part 6

Applied Social Psychology

CHAPTER 27

Prejudice and Ethnic Relations*

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Modern empirical research on relationships among members of different ethnic groups has developed from two main points of view. The first focuses on the groups themselves — their historical development, their cultural traditions, their migrations, and their changing political and economic fortunes. The man who probably did most to formulate this point of view was the American sociologist Robert E. Park (1913, 1950). Two of the outstanding works in this tradition are *The Polish Peasant in Europe and America* by Thomas and Znaniecki (1918) and *An American Dilemma The Negro Problem and Modern Democracy* by Gunnar Myrdal (1944).

The second approach to ethnic relations focuses on the attitudes and behavior of single individuals, and is concerned primarily with variations in attitudes and behavior from individual to individual within a particular population or ethnic group. For reasons of convenience most research in this tradition has dealt with attitudes rather than overt behavior, and the tradition may be said to begin with a series of attitude studies by E. S. Bogardus (1925a,b,c, 1927, 1928). It is worth noting that Bogardus in these studies was following a number of suggestions made by Park, and his basic concept — that of social distance — came from the same source (Park, 1924).

Although the individualistic approach to ethnic relations, like the group approach, developed first in sociology, it has been most intensively cultivated by psychologists. A crucial step in its development was the adaptation of the Bogardus social distance scale by Murphy and Likert (1938) to provide a general measure of tolerance for ethnic groups other than one's own. Perhaps the outstanding work in this tradition is *The Authoritarian Personality* by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950).

It should be obvious that these two broad approaches are complementary and overlapping rather than mutually exclusive. An adequate treatment of ethnic relationships would certainly require an integration of both approaches, and perhaps even of additional points of view, as suggested by Allport (1950). However, such a treatment would require more space than the present chapter allows and more interdisciplinary competence than the present authors possess. We are psychologists, and simply for this reason will limit ourselves to a review of studies made primarily from the individualistic point of view. The reader who wants to get the other side of the story should consult some of the recent sociological treatments of ethnic relations, such as those by Rose and Rose (1948), Berry (1951), Walter (1952), Simpson and Yinger (1953), and McDonagh and Richards (1953). One of the best single antidotes to psychological provincialism in this field is the volume of essays *Where Peoples Meet* by Hughes and Hughes (1952).

The point of view of this chapter will be not only provincial but also ethnocentric: we shall be concerned almost entirely with ethnic relations in the United States, and we shall discuss primarily the attitudes of white, gentile, native-

*We are grateful to Gordon W. Allport for a critical reading of this chapter in manuscript form, and for many helpful suggestions regarding its content. We are also indebted to a comprehensive review of studies on prejudice by Arnold M. Rose (1948a), which has been our most valuable secondary source. At the time the chapter was planned the authors were staff members of the Commission on Community Interrelations of the American Jewish Congress.

born, English-speaking Americans toward members of so-called "minority groups" This ethnocentrism is the unfortunate but necessary consequence of the nature of the research which has been done. There has been very little investigation from an individualistic point of view of ethnic relations outside the continental United States; some outstanding exceptions are the studies of LaPiere (1928), Dodd (1935), MacCrone (1937), Eysenck and Crown (1948), Buchanan (1951), and Murphy (1953). Research workers within the United States have concentrated on the ethnic attitudes of so-called "old Americans" because of the dominant political and economic position of this group. This concentration has been useful from a practical standpoint, but it has resulted in a lack of attention to the ethnic attitudes of other groups, which means that a research-based treatment of ethnic relations in the United States must inevitably be one-sided. Nevertheless, we shall attempt such a treatment.

A Few Definitions

Our key concept is probably that of *ethnic group* By this we mean a collection of people considered both by themselves and by other people to have in common one or more of the following characteristics: (a) religion, (b) racial origin (as indicated by identifiable physical characteristics), (c) national origin, or (d) language and cultural traditions A consequence of this definition is that it is possible to divide the population of the United States into ethnic groups in any one of a number of different ways A second consequence is that most individuals in the United States are members of several different ethnic groups The group membership that is most important for a particular individual at any given time depends partly on his own attitudes, and partly on those of other people. Every ethnic group has on its fringes individuals who are considered by some to belong and by others not to belong to the group in question. It is a hopeless task to specify the boundaries of any ethnic group exactly.

By an *ethnic attitude* we mean an attitude which some person has toward one, some, or all members of an ethnic group other than his own, provided that the attitude is influenced in some way by knowledge (or presumed knowledge) of the other individual's group membership By an attitude we mean a tendency or cluster of tendencies to react in various specific ways to another individual or to a group of other individuals. These reaction tendencies are considered to be either positive, neutral, or negative in direction. In their cognitive aspect they may consist of favorable or unfavorable beliefs about the other individuals, or a mixture of both. In their affective aspect they may consist of friendly or unfriendly feelings, or a mixture of both. In their conative aspect they may consist of desires to see the situation of the other individuals improved or worsened, or improved in some respects and worsened in others. The two essential components of an ethnic attitude for us are a belief about some other individual's group membership and at least one related reaction tendency toward him of a positive, neutral, or negative nature. We shall often refer to ethnic attitudes as "intergroup attitudes." They are most commonly studied through their expression in verbal or written communication to some third person who is not the object of the attitude in question.

By *prejudice* we mean an ethnic attitude in which the reaction tendencies are predominantly negative In other words, for us a prejudice is simply an unfavorable ethnic attitude.

By *intergroup behavior* we mean behavior that is intended to have some favorable, neutral, or unfavorable consequence for another individual or other individuals who are members of an ethnic group different from that of the behaving person We do not regard the expression of ethnic attitudes to an impartial investigator under conditions of anonymity as constituting intergroup behavior. In general, we believe the relationship between intergroup attitudes and intergroup behavior to be an extremely complex and variable one It seems clear that there are some individuals whose ethnic attitudes are continually being expressed in intergroup behavior of various sorts, while there are other individuals whose attitudes and behavior function in almost complete independence of one another. Behavioral situations also vary tremendously in the extent to which they allow ethnic attitudes to be expressed. A proposal of marriage is an example of a situation in which, if the two parties are members of different ethnic groups, their behavior will almost certainly be strongly influenced by their ethnic attitudes. At the other extreme is the situation of a clerk who is responsible, let us say, for selling stamps in a United States post office. It is very unlikely that his behavior toward the individuals who come to his window will be influenced in any noticeable way by his ethnic attitudes, whatever they are. The problem of

the relationship between intergroup attitudes and intergroup behavior is a crucial one, requiring extensive empirical study. Of such study there has as yet been woefully little; we shall report the meager research that exists.

Intergroup Attitudes

There is now considerable agreement among investigators as to the major psychological processes necessary for the adequate conceptualization of intergroup attitudes In general, such attitudes can best be described in terms of their *cognitive, affective,* and *conative* components (Smith, 1947, Krech and Crutchfield, 1948; Kramer, 1949, Chein, 1951).

In the following discussion each of these major dimensions or aspects of intergroup attitudes will be briefly described and then considered in terms of research findings that are directly or indirectly relevant. Before turning our attention to this task, several points should be clarified. First, it should not be assumed that the cognitive, affective, and conative aspects of attitudes are the only critical dimensions to be derived from an "analytical dissection" of such phenomena. Ostensibly, they permit a description of an attitude in terms of its content, i.e., the individual's beliefs and feelings about, and intended behavior toward, a particular ethnic group. Yet each of these content categories may be described in terms of such structural attributes as salience, covertness or overtness, degree of tenacity, and others (Chein, 1951) While these latter dimensions are no less significant for a meaningful description of intergroup attitudes, there is very little in the way of relevant research findings, so we shall focus our attention on the three major content categories.

Second, the reader should be forewarned that an attempt to discuss intergroup attitudes in terms of their cognitive, conative, and affective components does not mean that these categories can be clearly distinguished except for analytical purposes. Needless to say, the beliefs of an individual may involve emotional or affective overtones, in a like manner the affective responses of an individual toward a minority group and the kinds of action he thinks should be taken against them are probably very closely fused; certainly they are both motivational in character. Yet, in terms of our present state of knowledge, these categories — despite the fact that they overlap — are extremely useful for the investigator concerned with the nature of intergroup attitudes

We shall not attempt any systematic treatment of methods of measuring intergroup attitudes or their components, although we shall describe a few of the most widely used techniques. A concise review of diagnostic and measurement techniques in this field can be found in an article by Deri, Dinnerstein, Harding, and Pepitone (1948). A more elaborate and extended treatment is provided by Jahoda, Deutsch, and Cook (1951), Festinger and Katz (1953), and in the first volume of this *Handbook.*

COGNITIVE COMPONENTS

The cognitive components of intergroup attitudes are the perceptions, beliefs, and expectations that the individual holds with regard to various social groups. Under this heading are to be found the familiar negative and positive stereotypes characteristic of the thinking of various ethnic group members with respect to each other. Such stereotypes may involve any or all of the attributes ordinarily employed to describe the individual the way the group member looks (Jews have long noses, Negroes are dirty, etc.), his intellectual makeup (Negroes are unintelligent, Germans are scientifically minded, etc), the way he behaves or his personality traits (Jews are avaricious, seclusive, Italians are quick tempered, etc.). As Chein (1946) points out, the beliefs and perceptions that various groups hold toward each other may go beyond the personal characteristics of the individual and include institutions commonly associated with the groups — thus, that the Jewish faith calls for ritual murder; that the Catholic creed calls for loyalty to the church first, and country second; etc.

Much of the research on the cognitive aspects of intergroup attitudes has been focused on the problem of determining the most widely held beliefs about various ethnic groups, i.e., group stereotypes. The prototype for a number of later studies was the pioneer investigation of Katz and Braly (1933). One hundred Princeton students were asked to select from a list of 84 traits those they considered most characteristic of each of the following ten groups: Americans, Chinese, English, Germans, Irish, Italians, Japanese, Jews, Negroes, and Turks. Undoubtedly, the most striking finding of the investigation was the high degree of agreement in ascribing traits to the various groups, even where the students had had no contact with the group. In terms of the three traits most fre-

quently assigned, each of the groups was described as follows:

Group	*Three traits most frequently assigned*
Germans	Scientifically minded, industrious, stolid
Jews	Shrewd, mercenary, industrious
Negroes	Superstitious, lazy, happy-go-lucky
Italians	Artistic, impulsive, passionate
English	Sportsmanlike, intelligent, conventional
Americans	Industrious, intelligent, materialistic
Irish	Pugnacious, quick-tempered, witty
Chinese	Superstitious, sly, conservative
Japanese	Intelligent, industrious, progressive
Turks	Cruel, very religious, treacherous

Needless to say, the extent of agreement for the three traits listed varied from group to group Thus, whereas the range of agreement for the three traits most frequently ascribed to the Germans was from 44 percent to 78 percent, and for the Negroes, 38 percent to 84 percent, the corresponding range for the Chinese was 29 percent to 34 percent. Yet, even the latter finding demonstrates the pervasive nature of group stereotypes, inasmuch as one-third of the students, more or less, agreed that the Chinese are superstitious, sly, and conservative.

Following the lead of Katz and Braly, other investigators have reported similar findings with different student populations (Bayton, 1941; Schoenfeld, 1942, Bayton and Byoune, 1947; Eysenck and Crown, 1948). Thus, Negro college students at Virginia State College (Bayton, 1941) and white college students in Great Britain (Eysenck and Crown, 1948) ascribed traits to Negroes, Jews, Germans, and other groups similar to those obtained from the students at Princeton, although with less agreement on the most popular stereotypes. These studies, among others, lend considerable support to the view that there is a communality in the psychological traits attributed to different ethnic groups by individuals of varying personal experiences, needs, and cultural backgrounds.

Related to the problem of the pervasive nature of stereotypes is the equally significant question of their durability, i.e., to what extent they persist over a period of time A number of investigations support the contention, at least in the United States, that as situations change, stereotypes show corresponding changes or, more specifically, that where there are significant changes in the economic and/or political and/or social relationships between groups, occasioned by local or world events, relevant stereotypes tend to be modified. A classic example is found in the case of the Chinese living in California during the 19th century (Shrieke, 1936). When at first the Chinese were needed because the demand for factory workers, domestics, etc, was greater than the supply, they were described as sober, inoffensive, and law-abiding With a change in the economic situation, however, such that other groups began competing for the jobs held by the Chinese, the stereotype was radically modified to the extent that the latter were described as criminal, clannish, mentally and morally inferior, deceitful, etc.

Dudycha (1942) investigated the attitudes of successive groups of students toward Germans in 1936, then in April of 1940, and finally in September 1940 His findings clearly indicated the development of negative attitudes toward the Germans, and a growing tendency to ascribe unfavorable attributes toward them. Seago (1947) studied the stereotypes of five successive groups of Southern college women each year from 1941 to 1945. Her subjects were required to select from a prepared list of traits those they believed were characteristic of Negroes, Japanese, Americans, and Germans Prior to Pearl Harbor, i.e, in the 1941 investigation, Seago found her subjects somewhat favorably inclined toward the Japanese — they were characterized as courteous, shrewd, aggressive, ambitious, and tradition-loving. Following the attack on Pearl Harbor there was a change in the stereotype in a negative direction, the change persisting for all groups tested from 1942 to 1945. During this period the Japanese were characterized as being extremely nationalistic, cruel, treacherous, and shrewd. Meenes (1943) investigated the stereotypes of Howard University students in 1935 and again in 1942, i e., before and during World War II, and reported similar findings· positive trait adjectives were to a certain extent replaced by negative ones for both the Japanese and Germans.

One should not assume on the basis of the above discussion that group stereotypes are easily modified. On the contrary, such systems of beliefs tend to be relatively stable, in the sense that it requires unusual political, economic, or social events to modify them on a wide scale. Thus, in Seago's study cited above, stereotypes of Negroes and Americans remained more or less the same over the five-year period After comparing the stereotypes of Howard University students in 1935 and 1942, Meenes (1950) tested a third group of such respondents in 1948. While the impact of World War II clearly modified the stereotypes of Germans and

Japanese in a negative direction, the stereotypes of Jews, Negroes, Americans, and other groups did not show significant changes over the thirteen-year period.

Recently Gilbert (1951) reported an investigation of the stereotypes of 333 Princeton University students tested in 1950, eighteen years after the original study by Katz and Braly (1933). In effect, Gilbert repeated the earlier study in an attempt to determine the extent of persistence or change in stereotypes during a period in which there were marked political, social, and economic changes in the world. He found that, except for Germans and Japanese, the stereotypes of most ethnic groups were very similar to those obtained in 1932 by Katz and Braly. But Gilbert also found that there was much less readiness on the part of Princeton University students in 1950 to generalize about ethnic groups. Thus, not only were traits assigned much less frequently to various groups by the later generation of students, but a goodly number of them spontaneously voiced a "protest against the unreasonable task of making generalizations about people — especially those they had hardly ever met" (Gilbert, 1951, p. 251).

In any discussion of ethnic stereotypes, one is eventually confronted with the question of the extent to which they are true. A widely held view is that stereotypes must have some basis in reality, considering their pervasive and persistent nature — the "kernel of truth" hypothesis (Klineberg, 1950). While there is considerable evidence that some stereotypes may contain an element of truth (Rice, 1928), there are also a number of studies that indicate such belief systems may emerge without any objective basis (LaPiere, 1936; Humphrey, 1945). Common experience would suggest that whatever the grain of truth in the kernel of truth hypothesis, the objective support for stereotypes is at best a minor aspect of stereotypic thinking Specifically, we have in mind three characteristics of such thinking: (a) the tendency to attribute the traits to all members of a group without due regard to individual differences and without recognition of the fact that differences within groups are apt to be of considerably greater magnitude than differences between groups, (b) the tendency to assume that group membership *per se* is sufficient to account for possession of the traits and to overlook environmental pressures toward the development of the traits, (c) the tendency to evade the implications of experiences that contradict the generalizations. Unfortunately, most studies of stereotypes throw little light on these aspects of stereotyped thinking. Thus, it is generally impossible to tell for certain whether the subjects attributing some trait to a group are in fact ignoring individual differences or whether they are merely advancing a *statistical* generalization — and, if the latter, whether they are describing a modal group or an overwhelming majority. Nor can one tell whether the trait attribution is "class theoretical" or "field theoretical," or whether it is accompanied by a degree of conviction that makes it relatively impervious to contradictory experience. It may be noted that studies showing changes in stereotypes, cited above, may not be assumed to reflect simply changes in objective circumstances, since they also involve, to some unknown degree, changes in motivation as well.

AFFECTIVE COMPONENTS

Reactions toward minority group members involve not only beliefs but feelings as well, i.e., affective components. A great deal of information has been accumulated on affective reactions in ethnic attitudes — if we limit the term "affective" to the hostile-friendly (or pro-con) dimension. In fact, this has been the trend in ethnic attitude measurement· attempts to determine the individual's *over-all feeling* toward a particular group in terms of the direction and intensity of such feeling. On the basis of such scores, the individual is described as more or less hostile or friendly toward the group. Yet, it is evident that such measures, based as they are on a multitude of diverse types of items, may actually obscure the individual's predominant emotional response toward the attitudinal object Undoubtedly the individual may feel friendly or hostile toward a minority group; however, his basic affective response toward members of this group may equally well be fear, rage, sympathy, contempt, disgust, or perhaps some combination of these and other emotional reactions.

It is of interest to note that, in presenting a framework for the measurement of prejudice, Chein (1951) designates two categories under the general heading of affective components· "Net positive-negative affect," and "Specific affects." Research with reference to the latter is very sparse. In his analysis of the items employed in empirical surveys, public opinion polls, etc., concerned with ethnic groups, Kramer (1949) found only twenty-five that could be regarded as items measuring specific emotional orientations. Where depth techniques have been employed, some information has been obtained on the nature of the affect involved in

intergroup attitudes. Deutsch and Collins, for example, report the following remarks made by a woman living in an integrated Negro-white housing project whose attitude changed in a negative direction:

> "They are drunk and they follow you at night. I was walking down the street and one of them followed me for two blocks making remarks . . . I won't go out alone when it is dark now." (Deutsch and Collins, 1951, p. 100)

The affect involved in the above statement seems to be primarily fear. The specific emotional response of the individual toward a particular minority group is in all probability a function of the social setting in which he finds himself The prejudiced individual who is far removed from Negroes may feel only contempt and sympathy; under conditions where Negroes begin to filter into his community these feelings may be replaced with hostility and fear — although in both instances his attitude is negative.

While there is very little direct research evidence to go by, it is probably also true that certain ethnic groups are especially likely to evoke various specific emotional responses. Bettelheim and Janowitz (1950a), for example, report marked differences in the emotional reactions of prejudiced war veterans toward Jews and toward Negroes Not only were there differences in the pattern of stereotypes applied to the two groups, but there were differences in emotional orientation associated with these contrasting stereotypes:

> In the United States, where two or more ethnic minorities are available, a tendency has emerged to separate the stereotypes into two sets and to assign each of them to one minority group. One of these two sets indicates feelings of anxiety over the first minority's power or control (Jews exercising control, having power). The other set of stereotypes indicates anxieties aroused by the second minority's assumed ability to permit itself the enjoyment of primitive, socially unacceptable forms of indulgence or gratification (the Negroes' — and one might add the Mexicans' — dirtiness and immorality). (Bettelheim and Janowitz, 1950a, p. 42)

The authors contrast this situation with that prevailing in Nazi Germany, where the whole list of unfavorable stereotypes was applied to Jews.

The more general question of the extent to which Americans feel friendly or hostile toward various minority groups has been dealt with by many investigators, employing a variety of measurement techniques. Guilford (1931) examined the preferences, among fifteen ethnic groups, of 1096 college students attending institutions in various parts of the country — New York and Northwestern Universities, Wells College, and the Universities of Florida, Kansas, Nebraska, and Washington. A comparison of the rank order of preferences for all institutions except New York University revealed that they were almost identical. Even the NYU sample, despite its divergence from the other student groups in ethnic makeup, manifested preferences which correlated with those of the latter to the extent of .84 to .89

Other investigations, regardless of the measurement technique employed and the diverse samples studied, have produced substantially the same preference order obtained by Guilford Children of varying social, economic, and religious backgrounds (Meltzer, 1939a,b), college students of varying interests and experiences (Thurstone, 1928, Katz and Braly, 1935, Hartley, 1946), and schoolteachers, businessmen, etc. (Bogardus, 1928) exhibit more or less the same order of preferences On the whole, the most preferred groups are the English, Canadians, Irish, Scotch, and French; then come the Spaniards, Italians, and Russians, and finally, the Jews, Greeks, Mexicans, Japanese, Negroes, and Turks are preferred least

Hartley's (1946) investigation is of special interest because it demonstrates the relative stability of the order of preferences for ethnic groups. Initially he found that the ethnic group preferences of students from eight different colleges and universities located primarily in the Northeast were highly correlated ($r = 65$ to 95). More to the point, however, is Hartley's report that when he compared his findings obtained in 1938 with those obtained from a cross section of Americans by Bogardus in 1928 — despite the different samples studied and the ten-year time interval — a correlation coefficient of 78 was obtained. On the basis of the reported studies it is reasonable to conclude that Americans, notwithstanding differences in social class, background, interests, etc., manifest considerable communality in their relative preferences for various ethnic groups, and the preference pattern tends to persist.

Thurstone and his collaborators have produced a series of attitude scales, each of which is designed to measure the extent to which individuals feel friendly or hostile toward some specific ethnic group (Thurstone, 1931a,b,c, Hinckley, 1932, Peterson and Thurstone, 1932, 1933; Chapter 9). The method of scale construction consists of assembling a large number of emotionally toned statements about the

group in question and asking judges to sort these statements into eleven categories according to the degree of favorable or unfavorable affect which each statement seems to express The final scale consists of statements ranging from maximally favorable through neutral to maximally unfavorable Statements are included in the final scale only if a large proportion of the judges agree on their affectual value. Subjects are asked to check each statement with which they agree and are assigned scores on the basis of the median scale value of the statements that they endorse

There seems little doubt that the Thurstone method provides a useful, though approximate, measure of the general degree of friendliness or hostility which an individual feels toward members of a particular ethnic group. Riker (1944) has made the most direct attempt to test the validity of the method by comparing self-ratings of intensity of feeling toward Negroes and Germans with scores on the corresponding Thurstone scales. The correlation for affect toward Negroes was .69 and for affect toward Germans was 61. These figures are only slightly below the repeat reliabilities of the Thurstone and Riker scales.

CONATIVE COMPONENTS

Where the individual is emotionally predisposed toward a particular ethnic group, one may expect to find an accompanying conative or policy orientation, i e, a pattern of beliefs about the way in which members of that group should be treated in specific social contexts. In this category Kramer (1949) includes acceptance of other individuals in various personal and social relationships (social distance), succorance vs. nonsuccorance, withdrawal vs nonwithdrawal, aggression vs nonaggression, and enforcement of status differentials vs acceptance of status equality Chein (1951) accepts Kramer's "dimensions" but points out that each of them involves and can be measured in terms of at least three different points of view what the individual feels "should be done" (by someone else), what he feels he should do, or would like to do; and what he thinks he actually would do under a given set of circumstances.

There is an infinite number of questions that can be asked about the behavior which an individual considers appropriate toward members of a particular ethnic group, and there is a high degree of correlation between the answers given to one such question and to other questions in the same area MacKenzie (1948), for example, studied the relationships of six questions dealing with attitude toward Negroes. Five questions of the social distance type showed an average intercorrelation of .74 in a group of 312 college students. A question on whether Negro and white workers should have the same chances for upgrading showed an average correlation of 55 with the social distance questions. However, the relationship between any pair of questions was more dependent on the point of view from which the question was asked (in Chein's sense) than on the type of behavior involved. The upgrading question was asked in impersonal terms (what should be done). Four of the five social distance questions were asked in personal terms (I would rather . . .). The fifth was asked in impersonal terms ("Social clubs in and outside the plant should be open to Negroes and to white persons on exactly the same basis."). This question correlated more highly with the upgrading question (.70) than its average correlation with the other four social distance questions (64).

Because the intercorrelations of different social distance questions are so high, at least when the questions are all asked in personal terms, it is possible to construct a "social distance score" based upon answers to a series of such questions and from this score predict with a high degree of accuracy an individual's response to each specific question. Social distance questions come very close to satisfying Guttman's criteria for a unidimensional scale (Guttman, 1950). It is this fact which gives concrete empirical meaning to Park's (1924) metaphor of social distance Individuals do actually respond in answering such questions as if they were saying to members of another ethnic group. "You may come this close, but no closer."

The first, and most widely used, social distance scale is the one constructed by Bogardus (1925b); cf. Chapter 9. The subject is asked whether or not he would be willing to admit members of a particular ethnic group to each of the following classifications "To close kinship by marriage," "To my club as personal chums," "To my street as neighbors," "To employment in my occupation in my country," "To citizenship in my country," "As visitors only to my country," "Would exclude from my country." The first five categories are logically independent of one another, while the last two represent alternatives to the first five.

When the Bogardus scale is administered to large numbers of people, there is for most ethnic groups a regular progression in the percentages of respondents willing to admit members of the group to the successive relationships specified in the first five categories of the scale. For ex-

ample, in a study of 1725 native-born Americans, most of whom had at least a high school education, Bogardus (1928) found 94 percent willing to admit Englishmen to close kinship by marriage, 97 percent to their club as personal chums, 97 percent to their street as neighbors, 95 percent to employment in their occupation, and 96 percent to citizenship in the United States. For Germans the corresponding percentages were 54, 67, 79, 83, and 87. For German Jews the corresponding percentages were 8, 22, 26, 40, and 54, and for Negroes 1, 9, 12, 39, and 57.

The stable and consistent order of acceptance for the various categories on the Bogardus scale when group data are computed does not mean that every individual in such a group shows the same order of acceptance for the different categories It is not uncommon to find individuals who say they would accept members of a certain group in their club as personal chums, but would prefer not to have them as neighbors (perhaps because of concern over possible depreciation of property values). Other individuals may be willing to accept members of a particular group as neighbors, but fear their economic competition. These cases, however, are exceptional rather than typical, this is what we meant by saying that social distance questions come *close* to satisfying the criteria for a unidimensional scale.

Bogardus (1947) has investigated changes in social distance responses over a twenty-year period A group of 1,950 individuals similar in economic status and ethnic background to those studied in 1926 (Bogardus, 1928) were more favorably inclined, on the average, toward the ethnic groups included on the scale. The average reduction in social distance was four-tenths of a scale interval However, the relative standing of the various ethnic groups was much the same as in 1926 except for the Chinese, who moved from 33rd place to 25th place during the twenty-year period.

Relationships Among Intergroup Attitudinal Components

A discussion of ethnic attitudes in terms of cognitive, affective, and conative components inevitably raises the question of the extent to which these different attitudinal components are related in single individuals. Does knowledge of an individual's beliefs about a specific ethnic group enable us to predict his feelings and behavioral dispositions toward that group, and vice versa? This problem has been most directly attacked by D. T. Campbell (1947).

Campbell set himself the task of determining the extent to which prejudice could be regarded as a psychological unity. Specifically, his investigation was designed to reveal whether "intraethnic" or "interethnic" generality characterized the organization of intergroup attitudes. For the former the problem is one of the degree of relationship among attitudinal components for particular ethnic attitudes, while the latter involves the question of whether attitudinal components operate as separate and independent response tendencies which are uniformly applied to any and all minorities For his investigation, Campbell selected the following five attitudinal components or, as he prefers to designate them, "specific subtopics": social distance, blaming minorities, beliefs about their capability or intelligence; beliefs about their morality, and finally, "affection" for the group, i.e., liking or disliking it.

For each of five ethnic groups (Negro, Jew, Japanese, Mexican, English), five-item scales were prepared for the attitudinal areas indicated above. Thus, there were twenty-five such scales, each involving five items. The resulting 125 items were then presented in a mixed order as an anonymous questionnaire to 150 college students and 239 high school students. Intercorrelations of the sets of scores for the twenty-five scales with each other plus systematic scale analysis led Campbell to conclude that "attitudes have greater generality as organized around individual minority groups rather than as topically discrete modes of response applied to any and all outgroups" (D. T. Campbell, 1947, p 98) The degree of generality of attitudes toward a particular ethnic group was so great that for four of the five ethnic groups the various questions dealing with that group could be regarded as a close approximation to a unidimensional scale — even though these questions were designed to measure five different dimensions of attitude toward the group. In other words, intergroup attitudinal components tend to be highly consistent with one another — a finding which has been reported by several other investigators as well.

In his classic study of the development of attitudes toward the Negro, Horowitz (1936) employed three different pictorial tests; the "Ranks," "Show Me," and "Social Situations" tests. Ostensibly, the Ranks test measured these attitudes in terms of their affective components, the subject being required to arrange a group of twelve portraits of Negro and white children in order of preference. The other two tests pro-

vided measures of the child's behavioral dispositions toward Negroes The Show Me test asked the child to select from the Negro and white portraits companions for various activities, e g., eating with, riding with, etc ; the Social Situations test required him to indicate whether or not he wanted to participate in a pictorially presented social situation Each social situation was presented twice, one picture with all white children being shown and the other with a mixed group of white and Negro children.

Of interest here is the fact that Horowitz found for groups of children ranging in age from 5 to 14 years that intercorrelations among the three tests, computed separately for each age group, increased with advancing age. This clearly suggests greater consistency among intergroup attitudinal components with increasing maturity However, the actual size of the intercorrelations was much less than in Campbell's study, particularly in the case of the Social Situations test, which showed an average correlation of .15 with the Ranks test and .23 with the Show Me test This in spite of the fact that both the Social Situations and the Show Me tests were supposed to measure behavioral dispositions toward Negroes By contrast, the Show Me test had an average correlation of .61 with the Ranks test, although the latter seems to be a measure of affective rather than conative orientation. This finding is reminiscent of MacKenzie's (1948) with respect to her social distance questions. the degree of correlation between two attitudinal measures seems to depend more on similarity in the measurement techniques used than it does on the attitudinal content these techniques are intended to tap.

As part of an extensive study of minority group prejudice and personality, Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) initially developed an anti-Semitism scale that included a number of subscales. Four of these subscales (designated as the "Offensive," "Threatening," "Intrusive," and "Seclusive" subscales) more or less measured the cognitive components, i.e., beliefs and perceptions consistent with anti-Semitic attitudes. The fifth subscale (designated as the "Attitudes" subscale) involved questions touching primarily upon the behavioral aspects of these attitudes. Suffice it to say that the Attitudes subscale correlated very highly with the other subscales and with the total scale, indicating a very close correspondence between beliefs and action orientation. Furthermore, the other subscales correlated highly with each other and with the total scale. These findings, the investigators believe, indicate a general tendency on the part of each individual to accept or reject anti-Semitic ideology as a whole.

While the findings of the above studies clearly indicate that intergroup attitudinal components tend to be congruent, it would be a mistake to assume that such integration is always the case In the previous discussion we described in part a questionnaire developed by MacKenzie (1948) to measure attitudes toward the Negro In addition to the already described behavioral items, the scale contained five items on group characteristics in relation to job performance, e g., carefulness, steadiness, intelligence, etc. Correlations of each of the behavioral items with the total score on the five "characteristics" items produced relatively low coefficients, ranging from .18 to .52. The behavioral items "eat with," "ride with," and "live near" correlated 52, .48, and .46 respectively with the "total characteristics score"; willingness to work with Negroes, .30, and finally willingness to mix with Negroes in social clubs and have them upgraded on the job, 25 and .18 respectively. It is readily evident, from the three lowest coefficients obtained, that granting the Negro social and economic equality in certain areas had very little relationship to what the students believed Negroes were like as workers Hence, and this seems at first sight paradoxical, positive beliefs about the Negro as a worker could not be taken as evidence of a willingness to work with him on the job ($r = .30$). On the whole, MacKenzie's findings suggest that the action orientations of the individual toward minority group members are not necessarily consistent or correlated with his beliefs about them.

In the studies by Katz and Braly (1933, 1935) cited earlier, in addition to the 100 students asked to assign traits to ten racial and national groups, another group was asked to rank the ten groups "on the basis of preference for association with their members", and still another was asked to rate the source list of 84 traits on the basis of desirability in friends and associates. Hence the second group of subjects provided a ranking on the ten groups based on their affective orientations toward them, whereas the data obtained from the first and third groups provided a ranking based on the group stereotypes of some subjects. To a great extent the two rankings were similar, indicating that the most preferred groups are perceived in terms of the most favorable stereotypes and the least preferred groups in terms of the least favorable stereotypes. Yet it is interesting to note that while the Italians ranked fifth in preference, above the Japanese, Jews, and Chinese, the overall stereotype applied to them was less favorable

than those assigned to the latter three groups A similar discrepancy between beliefs and preference occurred for the Japanese. The stereotype assigned to them was the fourth most favorable, while they ranked sixth in order of preference. Of course, all that these data indicate is that the relative degree to which a stereotype about a group is favorable or unfavorable when compared with other group stereotypes is not perfectly correlated with preference for this group among the others. In an indirect way, this finding serves to suggest that beliefs and feelings may not always be congruent.

We have previously referred to a study by Bettelheim and Janowitz (1950a), who investigated prejudice toward Negroes and Jews among 150 war veterans living in Chicago On the basis of intensive interviews these investigators were able to distinguish four types of anti-Semitic (also anti-Negro) attitudes. The two extreme anti-Semitic types, "intensely anti-Semitic" and "outspoken anti-Semitic," were both stereotyped in their thinking and in favor of repressive measures against Jews — the difference between them being that the former were more spontaneous in their expression of hostility toward Jews Needless to say, for these groups, the cognitive, conative, and affective aspects of their anti-Semitic attitudes form a highly integrated and consistent pattern. The "stereotyped anti-Semitic," who made up 28 percent of the group studied, perceived Jews in terms of a variety of unfavorable stereotypes but did not favor any restrictive action against them, even when questioned directly. Hence, unlike the subjects studied by Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), for this group only a part of the anti-Semitic ideology is accepted While they may believe that Jews are clannish, economically powerful, and "dirty" in their business methods, they are not predisposed to taking any action against them Here there seems to be a lack of congruency between beliefs, on the one hand, and conative orientation on the other. Of course, the "tolerant" veteran — the fourth type of subject studied — manifested an integrated attitude toward Jews, in that he was relatively free of stereotyped thinking and directly opposed to repressive measures.

We should make it clear that the distribution of attitudes found by Bettelheim and Janowitz is compatible with the hypothesis that anti-Semitism is a unitary variable in the Guttman sense. According to this hypothesis, stereotyped thinking about Jews and endorsement of restrictive measures against them differ merely in their "scale position" on this variable — i e., a greater degree of anti-Semitism is required to advocate discrimination against Jews than is required to hold unfavorable stereotypes regarding them The unitary variable hypothesis would be refuted only by showing that there are some individuals who are "off the scale" — i e, who advocate discrimination against Jews but who do not hold unfavorable beliefs about them. Bettelheim and Janowitz report only one case of this sort. A similar situation held with regard to anti-Negro attitudes, except that there were nine individuals who advocated some form of restrictive action against Negroes without holding any unfavorable stereotypes regarding them, and only three who held unfavorable stereotypes without advocating any restrictive action.

In this section we have discussed the degree of relationship among components of attitude toward a particular ethnic group in correlational terms. The correlations reported in most studies are high, but far from perfect. The exact size of the correlations depends heavily on the techniques of measurement used The discrepancies in attitude occur often enough to make us quite sure that prejudice toward a particular group is not actually a unitary variable; however, the relationship among the various attitudinal components is so close that it does not make much difference in practice whether we use cognitive, affective, or conative tendencies to rank individuals with respect to their attitudes toward any specific ethnic group.

An entirely different question is that of the *functional* dependence of intergroup attitudinal components on each other Do changes in any one of them necessarily imply corresponding changes in the others? There is very little direct evidence on this point, but we shall attempt a discussion of it in our section on attitude change.

Relationships Among Attitudes Toward Different Ethnic Groups

Many investigators believe that there is a general factor of prejudice or tolerance which tends to unify the reactions of an individual toward members of all minority groups. According to this view the individual who is favorably disposed toward the Negro will respond in like manner toward Jews, Chinese, and out-groups in general. On the other hand, the

anti-Negro individual will also be bigoted with respect to other minorities. A number of investigations have been reported that support this thesis.

Murphy and Likert (1938) administered a form of the Bogardus social distance scale involving judgments of twenty-one ethnic groups. A generalized social distance score was constructed by giving each individual one point for each relationship to which he was willing to admit members of the first ethnic group, similar points for each relationship to which he was willing to admit members of the second ethnic group, and so on. Scores based on responses to ten of the ethnic groups, chosen at random, correlated .88 and .90 with scores based on the other eleven groups when the test was administered to 25 students at Columbia and 60 at the University of Michigan. These high correlations provide clear evidence of the generalized nature of the students' responses toward various ethnic groups However, their attitudes could not be interpreted solely in terms of a factor of general tolerance toward out-groups, since social distance scores based on responses to all 21 ethnic groups correlated only .68 with scores on a separate test of attitudes toward Negroes at Columbia and .33 with the same test at Michigan These correlations are well below the split-half reliability coefficients of the two tests

Essentially the same results were found by Hartley (1946) in a similar study, using the Bogardus technique. Hartley included in an alphabetical list of 35 ethnic groups three which were nonexistent Danireans, Pireneans, and Wallonians. For the college and university groups studied he found a consistently high correlation between average social distance for the real ethnic groups and average social distance for the three fictitious groups; the correlation coefficients ranged from .78 to .85. Correlations between social distance scores for the Jews and for the three fictitious groups ranged from .55 to 73 for the same student groups.

From their extensive study of personality and prejudice, Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) were led to the conclusion that ethnocentrism is a general response tendency manifested by hostility indiscriminately expressed toward Negroes, Jews, and out-groups in general. Subscales dealing with Negro-white relations, minorities other than Negroes and Jews, and America as an in-group in relation to foreign nations were combined into a general ethnocentrism scale. Intercorrelations of the three subscales ranged from .74 to .83, and the scale as a whole correlated .80 with the anti-Semitism scale described previously in this chapter.

Similar findings indicating a general tolerance factor have been reported by Bolton (1937), Kerr (1944), Prothro and Jensen (1950), and Prothro and Miles (1952). These studies included a wide variety of subjects, many of whom were not college students.

D T. Campbell (1947), in an investigation we have already cited, showed that general tolerance or ethnocentrism is not the *only* factor operating in intergroup attitudes. His 25 scales (covering five specific areas of prejudice for each of five different ethnic groups) were not sufficiently related so that all of them could be regarded as measures of a single underlying variable. A considerable number of his subjects were significantly more favorable or less favorable toward some particular group than could have been predicted from their scores on the test as a whole. Campbell found much more evidence for unidimensionality of attitude toward a specific ethnic group than for unidimensionality of attitude toward out-groups in general.

Bettelheim and Janowitz (1950a) report findings similar to those of Campbell. In their study anti-Semitism and anti-Negro attitudes seemed to operate as separate, though closely related, variables.

None of the research we have cited throws much light on the functional relationship of attitudes toward different ethnic groups. We shall take up this problem in our discussion of studies of attitude change.

Relationships Among Intergroup Attitudes and Intergroup Behavior

There has been very little investigation of the intergroup behavior of single individuals. A large part of the research that has been done is concerned mainly with demonstrating discrepancies between intergroup behavior and ethnic attitudes, or between behavior in one situation as compared with another.

One of the earliest and most dramatic investigations of this sort was that of LaPiere (1934). Traveling through the United States, he and a Chinese couple stopped at 66 establishments providing sleeping accommodations and 184 eating places. They were refused service only once, at a tourist camp. As part of a follow-up study, LaPiere mailed a questionnaire to the proprietors of the establishments visited which asked whether members of the Chinese race would be accepted as guests. Of the 250 estab-

lishments visited, 128 returned the questionnaires Approximately 93 percent of the restaurants and 92 percent of the sleeping places indicated they would not accommodate Chinese people. Questionnaires sent to a control group of establishments which had not been visited produced results almost identical with those obtained from the "experimental" group.

A recent study by Kutner, Wilkins, and Yarrow (1952) demonstrated similar inconsistency in behavior toward the Negro under varying circumstances. Two white women and one Negro woman visited 11 restaurants in a Northeastern community, and in each instance the three patrons were served without delay or inconvenience. Two weeks after each restaurant was visited, a letter was sent to the management requesting reservations for a "social affair" which — and this was made explicit in the letter — would include white and Negro persons. Seventeen days after the letters were mailed not a single reply had been received from any of the restaurants Telephone calls were then made to each establishment and the requests for reservations were made again by repeating the significant parts of the original letter. None of the restaurant managers complied with the phoned requests for reservations, although five of them, with considerable reluctance, provisionally agreed to accept the party. A "control" telephone call made a day after the first telephone call and making no references to the racial character of the group resulted in all but one of the restaurants making the reservations as requested.

Minard (1952) has contrasted the behavior of Southern white coal miners toward Negroes within the mine and outside it Within the mine there is a high degree of racial integration and complete equality of status below the supervisory level. Outside the mine the two races occupy different status levels in almost every situation. The exceptions to this rule are situations closely related to mining activities, such as union meetings and the buses which carry the miners to and from work. In these situations racial equality again prevails.

Minard reports that about 20 percent of the white miners indicate favorable attitudes toward Negroes by their behavior both inside and outside the mine, while another 20 percent show prejudiced behavior in both types of situation. It is the remaining 60 percent whose overt behavior provides no clue as to their attitudes, since it seems to conform at all times to the group norm for the situation they are in.

Saenger and Gilbert (1950) tested the hypothesis that anti-Negro prejudice in white department store customers would not lead to discrimination against Negro sales personnel or the stores that employ them. Nine stores were involved in the investigation, all of them located in New York City. Three groups of subjects were interviewed. The interviews for two of the groups came after the subject had approached a counter served by both white and Negro clerks one group consisted of 61 customers who had been observed talking to the Negro sales clerk, the second group involved 53 persons who had dealt with the white clerk. The third group consisted of 142 individuals who were interviewed in the streets and parks near the stores and as such were regarded as potential customers. Two measures of prejudice were obtained, one based on a single question ("What would you think if all New York department stores hired Negro sales persons?"), and the other on data from the entire interview.

In general, Saenger and Gilbert found that there was no tendency in prejudiced individuals to avoid buying in stores employing Negro sales clerks, or to avoid dealing with the Negro clerks in such stores Fourteen percent of the control group, i e , the potential customers, disapproved of the idea of New York department stores employing Negro sales personnel, whereas the corresponding figures for the two groups of customers were 20 and 21 percent

The hypothesis that anti-Negro customers would not reject Negro sales clerks in practice was formulated by Saenger and Gilbert on the grounds that accepting service from Negro clerks involves a number of motives whose combined strength is greater than the motivation to avoid being served by them. An analysis of the interview data revealed something of the nature of these motives. Thus the desire to purchase a particular object quickly tends to influence the prejudiced individual in the direction of accepting the Negro clerk Furthermore, anti-Negro attitudes may be in conflict with other attitudes that include beliefs in the democratic way of life, equality for all, etc. Which of the two contradictory attitudes prevails with respect to overt behavior depends, of course, on the social setting in which the individual happens to be. Given a community that accepts Negro sales help — thereby creating the impression of a tolerant setting — it is more than likely that prejudicial attitudes will be suppressed in favor of those that involve democratic ideals.

The preceding studies have all dealt with intergroup behavior occurring as a part of various economic activities. In this context it is difficult to demonstrate any relationship whatsoever

between ethnic attitudes and intergroup behavior. Bradbury (1953) has made this fact the basis for what he calls "the economistic hypothesis" regarding unfavorable intergroup behavior:

> On (this) third hypothesis, discrimination is merely a more or less rational mode of adaptation to the social environment in the course of the pursuit of interests . . The individual simply discovers that he can serve his interests more effectively if he conforms to the existing social pattern of discrimination, or if he initiates discriminatory behavior, than if he defies the pattern or treats the members of another group as his equals. Discrimination occurs and persists insofar as it has utility in the attainment of the discriminator's goals, whatever they may be. maximizing his social status or his power, preserving the integrity of the organization with which he identifies himself, giving his children a good start in life, etc. (p 121)

Bradbury goes on to argue that a great mass of practical experience indicates that most intergroup behavior in economic settings does in fact conform to the economistic hypothesis:

> Most persons in responsible administrative roles behave, so far as their organizational decisions are concerned, like predominantly expediential discriminators. Rank-and-file participants offer somewhat more evidence of traditional and compulsive overt expression of prejudice, but, when their behavior as members is regarded over a span of time, they too must be interpreted as predominantly instrumental discriminators, at least in this sense. they do not treat discriminatory behavior as an absolute value, but weigh it with other values. Against any one of a number of these, in the psychic balances of the vast majority of Northern, urban, American organization participants today, it seems to be greatly outweighed. (p. 125)

There is an area of social life, however, that is not so dominated by the rational pursuit of self-interest, and in this area the intergroup behavior of specific individuals seems to show at least a moderate degree of correspondence with their ethnic attitudes. Diggins and others have demonstrated a fairly consistent correlation between the favorableness of an individual's attitude toward another ethnic group and the number of close personal contacts he is likely to have with members of that group (Diggins, 1927, Harlan, 1942; Allport and Kramer, 1946; Irish, 1950). It is unfortunately not clear from these studies to what extent personal contacts are the result of favorable attitudes, favorable attitudes the result of personal contacts, or both the result of other factors such as the social milieu in which an individual lives.

The clearest evidence for the influence of ethnic attitudes on personal contacts comes from a study by Wilner, Walkley, and Cook (1952). These authors found that among white housewives living near Negro families in integrated housing projects 76 percent of those with initially favorable attitudes toward Negroes reported extended conversations or other neighborly associations with them, while only 64 percent of those with initially unfavorable attitudes reported such personal contacts. Among white housewives living farther from Negro families in the same projects the corresponding percentages were 43 and 29. Similar results were found for white housewives living in projects in which Negro and white families occupied separate buildings. In both types of project attitudes toward Negroes had a significant influence on the extent of contact with them, but this influence was considerably less than the influence of sheer physical proximity.

The rather slight relationship between intergroup attitudes and personal contact found by Wilner, Walkley, and Cook in this part of their study is not inconsistent with the results of other investigators previously cited. Wilner, Walkley, and Cook found a closer relationship between extent of contact and attitude toward Negroes after several years of residence in the housing projects than between extent of contact and initial attitude, presumably because the occurrence of personal contact tended to modify attitudes in a favorable direction. It seems likely that the relationship between contact and attitudes would have been closer still if the more prejudiced respondents had been living in environments unfavorable to friendly interracial contact, while the less prejudiced individuals were in evironments in which interracial association was relatively easy This situation probably prevailed among the individuals studied by Diggins and the other authors we have cited.

So far we have been discussing primarily the effect of different types of situation on the relationship between ethnic attitudes and intergroup behavior. Merton (1949a) has attempted a fourfold typology of *individuals* in terms of the relationship between their attitudes and their behavior Merton's four types are (1) the unprejudiced nondiscriminator, or "all-weather liberal"; (2) the unprejudiced discriminator, or "fair-weather liberal"; (3) the prejudiced nondiscriminator, or "fair-weather illiberal", and (4) the prejudiced discriminator, or "all-weather illiberal." Types 1 and 4 behave in a manner consistent with their attitudes in all the situations in which they find themselves, while

types 2 and 3 behave in every situation in whatever manner seems most expedient

It should be clear that Merton's four categories represent ideal types rather than empirical ones, although Merton himself seems to be rather confused on this point. Types 1 and 4 represent the extreme case of perfect correspondence between attitudes and behavior, while types 2 and 3 represent the extreme case of no dependence of behavior on attitudes. Actual individuals, of course, fall somewhere between these two extremes For an empirical typology we need to specify a certain degree of dependence of behavior on attitudes above which an individual will be considered as approximating type 1 or type 4, and below which he will be considered as approximating type 2 or type 3. Until this has been done (and until a similar boundary has been set to divide the more prejudiced individuals from the less prejudiced) the question of the relative frequency of occurrence of the various types has no empirical meaning

Even if Merton's ideal typology were transformed into an empirical one, there would still be great difficulty in applying it to specific individuals because it requires a knowledge of the extent to which their intergroup behavior is actually dependent on their attitudes. It seems clear that each individual would have to be observed in at least one situation in which behavior according to his ethnic attitudes was inexpedient. In spite of these difficulties Merton's approach is an illuminating one, and may provide the basis for much valuable empirical study.

A recent number of the *Journal of Social Issues* has been devoted to the general problem of the relationship between various aspects of intergroup attitudes, between intergroup behavior in various situations, and between intergroup attitudes and behavior (Chein, Deutsch, Hyman, and Jahoda, 1949). Chein sums up these contributions in the following terms:

> There is no dearth of concepts and theories relevant to the consistency-inconsistency problem. Since, nevertheless, the problem has largely been neglected in research, the conclusion as to the most urgent task is obvious it is not to search for new theoretical approaches, nor to induce different disciplines to take cognizance of the existence of this problem area, but rather to get actual research projects in intergroup relations up to the level of sophistication provided by current theoretical thought (Chein, 1949, p 52)

The Development of Intergroup Attitudes

Social scientists are agreed that intergroup attitudes are learned, and that they are not inherited or inborn (Horowitz, 1944; Metraux, 1950, and others). Nevertheless, at least one serious student of the problem (Allport, 1950) has suggested a possible hereditary factor that may act as a predisposing element in the genesis of ethnic prejudice, namely, "the possibility of a constitutional bent toward rigidity" There is as yet no evidence for the existence of any such genetic factor

Although anecdotal reports of infantile ethnic aversion have appeared from time to time, reliable evidence on the development of intergroup attitudes indicates that they are rarely seen before the nursery years. Systematic research on this problem seems to show that ethnic attitudes begin to take shape in many children (although certainly not in all) during their third or fourth years

A recent intensive investigation is that of Goodman (1952), who studied 57 Negro and 46 white nursery school children ranging in age from three and one-half to five and one-half years. All of these children lived in or near a mixed Negro-white area of a Northern metropolis. One of the nursery schools contained an approximately equal number of Negro and white children, one was all-Negro, and one was approximately 80 percent white

On the basis of a variety of testing and interview procedures Goodman concluded that 24 percent of the white children had a high awareness of racial characteristics and the favorable or unfavorable social implications of racial membership, 61 percent had a medium degree of awareness, and 15 percent a low degree of awareness The corresponding figures for Negro children were 40 percent, 45 percent, and 15 percent. Even among the children with low awareness there was usually some idea of color distinctions as applied to people, and some differential valuing of people in terms of color. These children, however, used racial terms infrequently and often inaccurately. There were no significant differences in racial awareness among the children in the different nursery schools.

As might be expected, Goodman found a relationship between racial awareness and age. High awareness did not appear before the age of four years and three months, while low awareness did not occur in this sample after four years and eleven months.

Eighty-nine of the 103 children showed a fairly consistent preference for dolls, characters, and presumably also for real individuals of one color rather than the other. Of these 89, 92 percent of the white children and 74 percent of the Negro children preferred white characters. It is possible that some of these preferences indicate merely abstract liking for a particular color, without regard to the racial membership that it indicates. It is also possible that greater familiarity with white dolls and white storybook characters may have been a determining factor. Goodman does not present much systematic evidence on the reasons for white preference in her subjects. However, it was fairly clear from the comments of most of the medium- and high-awareness children that their preferences applied to real people, and not merely to dolls and storybook characters. The medium- and high-awareness Negro children, for example, knew that they themselves were brown, and often knew whether they were light, medium, or dark brown. Many of them found the test situations emotionally disturbing — a reaction which was very rare among the white children.

Although racial preferences seemed to be well developed in most of Goodman's subjects, she found only a minority who showed signs of racial hostility Eighty-four percent of the Negro children expressed some positive friendliness toward individuals of the opposite color, and only nine percent expressed antagonism toward them. Among white children the corresponding percentages were 56 and 33. Twenty-four percent of the Negro children and none of the white children expressed some antagonism toward individuals of their own color.

Findings similar to those of Goodman have been reported by Horowitz and Horowitz (1938), Clark and Clark (1939, 1940), and Radke and Trager (1950). Preference for white dolls (and presumably also for white individuals) remains very high among white children through the age of 7. Horowitz (1936) showed that this same preference continues through the age of 14

Clark and Clark (1947) studied 253 Negro children ranging in age from three to seven years. One hundred and nineteen attended interracial nursery and public schools in Massachusetts, while 134 attended segregated schools in Arkansas. The children were presented with dolls identical except for skin and hair color and asked (among other questions) to "Give me the doll that you like to play with." Seventy-two percent of the northern children and 62 percent of the southern children chose a white doll in answer to this request. The relationship of preference to age was curvilinear: a white doll was preferred (to play with) by 55 percent of the three-year-olds, 76 percent of the four-year-olds, 74 percent of the five-year-olds, 71 percent of the six-year-olds, and 60 percent of the seven-year-olds. The Clarks, like Goodman, found that some of their Negro children were disturbed by the investigation, especially during the latter part of the interview when they were required to make self-identifications.

Hartley, Rosenbaum, and Schwartz (1948a,b) studied racial, religious, and national group identification among 86 New York children ranging in age from three to ten years. In the course of an extended interview the children were asked questions such as. "What are you?" "What is Daddy?" "What is Mommy?" "Are you Catholic?" "Are you Jewish?" etc. The results showed that "with increasing age children shift from describing themselves . . . and the people who surround them by reference to their own names or the names of specific individuals to the use of ethnic designations" (p. 374). Ethnic self-recognition generally preceded ethnic recognition of others. Membership in an ethnic minority was a factor predisposing to the early development of ethnic awareness.

Radke, Trager, and Davis (1949) found that Jewish children between the ages of 5 and 9 were more aware of their group membership and more strongly identified with their own ethnic group than were Catholic or Protestant children. Other studies have shown that as Jewish children become older they tend to differentiate among behavioral areas, perceiving their Jewishness as relevant in some but not in others (Radke, 1951, Chein and Hurwitz, 1950)

The process of development of intergroup attitudes after the nursery school years is complicated and difficult to describe. From one point of view it can be regarded as a process of *differentiation,* in which the child gradually learns the specific stereotypes that are applied by adults in his environment to members of a given group and the specific kinds of treatment that members of that group are supposed to receive in varying situations. Strong support for this view is found in a study by Blake and Dennis (1943) of the development of stereotypes concerning the Negro in a group of 324 southern white children in grades one through eleven. The attitudes of children in all grades were strongly anti-Negro, but while the children in the lower grades believed that Negroes had only bad traits, those in the upper grades attributed a few favorable characteristics to Negroes along with a great majority of unfavorable ones. There was more agreement

among the older children in the stereotypes assigned to Negroes, and their stereotypes approximated those of adults in the community

Similarly, Horowitz (1936), in a study we have already cited, found a gradual increase from age 5 to age 12 in the number of social situations which white children said they wanted to participate in if they were all-white, but not if a Negro child was included. Horowitz found a somewhat similar relationship to age for his Show Me test, which required the child to choose either Negro or white companions for various hypothetical activities. However, the Ranks test, which seems to be a rather pure measure of affective orientation toward Negroes, without reference to any behavioral situation, showed no relationship to age in the groups Horowitz studied. Generalized preference for whites as compared with Negroes was well established by the age of 5, and continued thereafter without noticeable alteration.

Another form of differentiation in attitudes which seems to occur during the grammar school years is the establishment of a hierarchy of preference among a variety of ethnic groups. Zeligs (1938, 1948) and Zeligs and Hendrickson (1933, 1934) have shown that by the age of 11 children's attitudes toward various ethnic groups, as measured by a social distance scale, have become fairly well stabilized. The order of preference for the different ethnic groups is essentially the same as that found among adults.

This same process of development can also be regarded as a gradual *integration* of ethnic attitudes within each individual child. One of the main findings of Goodman (1952) with her low-awareness and medium-awareness nursery school children was the inconsistency with which they used racial terms and concepts. It is rather difficult with children as young as these to distinguish clearly a more prejudiced and a less prejudiced group However, this difficulty largely disappears by the age of 7 (Kutner, 1950). Similarly, Horowitz (1936) found very low correlations among his three different pictorial tests of ethnic attitudes among 5- and 6-year-old children. The intercorrelations increased steadily through the age of 14.

The process of differentiation and integration of attitudes that occurs during the grammar school years may involve either an increase or a decrease in the level of prejudice toward a particular ethnic group. Horowitz (1936) found an average increase in prejudice toward Negroes from age 5 to age 12 on his Show Me test and on his Social Situations test. Radke and Sutherland (1949) found greater hostility toward Negroes and Jews with increasing age among 275 midwestern children between the ages of 10 and 12 On the other hand, Blake and Dennis (1943) report that the general level of hostility toward Negroes remained approximately the same among their subjects from the first grade through the eleventh.

Meltzer (1941a,b) obtained ratings of 21 ethnic groups from 1000 grade school children and looked for changes in attitude from the fifth to the eighth grades. The older children tended to rate Germans more favorably than the younger children, and Armenians, Mexicans, and South Americans less favorably. There were also differences from grade to grade in the reasons given for liking or not liking a particular group.

Some unpublished research by John Harding, Marilyn Shwartzapel, and Erna M. Benjamin indicates a general *decrease* in anti-Negro prejudice with advancing age among 147 white New York children between the ages of 6 and 14 The method of investigation was the Movie Story Game, a projective test developed by Chein, Evans, and Hogrefe (Chein and Evans, 1948). The test involves the manipulation of doll characters in situations set up by the research worker, and the attribution of sentiments to these characters. Several measures of prejudice are derived from the test, all of which showed a significant tendency to decrease with age. These investigators contrast their findings with those of Horowitz (1936), and conclude that the difference in results is primarily due to changes in the social climate of New York City over a fifteen-year period rather than to differences in the measurement techniques used in the two studies.

By the age of 14 ethnic attitudes have become crystallized in the vast majority of children, although they remain subject to modification by a variety of social influences. The most extensive study of prejudice during the high-school years is that of Minard (1931). Minard administered to 1352 Iowa children a questionnaire describing 32 behavioral situations involving a variety of ethnic groups. The child was asked a great many questions about what was the right thing to do and also how he himself would feel or what he would be likely to do in most situations. By the first criterion there was a small decrease in prejudice from the seventh to the tenth grades, and no change from the tenth to the twelfth grades. By the second criterion there was a steady *increase* in prejudice from the seventh through the twelfth grades.

Boynton and Mayo (1942) studied the atti-

tudes of white and Negro high school students in Tennessee. The white students in the upper classes were more anti-Negro than those in the lower classes, while the older Negro students were more firmly convinced of their right to equality than the younger ones.

When we compare groups of students who are at different stages in their school careers, we are dealing with differences in amount of education received as well as in age. We have chosen, rather arbitrarily, to regard such comparisons up through the high-school level as measuring primarily the effects of age, and those at the college level as measuring primarily the effects of education plus differential selection of students. We shall discuss these latter factors in another section of this chapter.

The Development of Intergroup Behavior

There is only a rough and approximate correspondence between the development of ethnic attitudes and the development of intergroup behavior. The intergroup behavior of young children seems particularly variable and inconsistent. Goodman (1952), for example, has found that racial and religious epithets are often coupled with friendly play. It is difficult to determine to what degree the use of epithets in friendly play represents an inconsistency in attitudes as against the degree to which the epithet is not perceived by the user as capable of hurting the object, or the degree to which the controlled use of strong stimuli is itself a form of play. The issue is complicated by the fact that the epithet may not have the same meaning for user and object.

Among older children racial and religious epithets are clearly recognized as a form of aggression. Axline (1948) presents an interesting case study of behavioral conflicts between a seven-year-old Negro girl and a number of white children of the same age in an unstructured play situation. Although the white children seem to have been relatively free from prejudice, conflicts involving an exchange of racial epithets were fairly frequent during the early group meetings. Most of these conflicts were resolved by the children in a constructive fashion, and none occurred during the later meetings.

It is possible that with experience there may be increasing integration between attitudes and behavior in children. Or it may be that, regardless of the strength or direction of attitudes, *behavior* conforms more and more to the general social norms with increasing age. Studies using actual behavior indices are quite scarce, to say nothing of studies presenting both attitudinal and behavioral data so that one can compare the developmental relationships between them. Although some studies have included incidental interethnic observation of actual behavior, it has not been systematically investigated except with reference to studies of the voluntary self-segregation or self-selection of classmates or playmates among children, and even here the data are generally of a quasi-behavioral sort. Using a sociometric technique, Moreno (1934) found that "cleavage" began to manifest itself in the 5th grade, around age 10. Since it is fairly clear that "attitudinal cleavage" begins to manifest itself in most children at earlier ages, it might be said that in this study behavioral cleavage "caught up" with the corresponding attitudes by the 10th year (cf. Chapter 11).

Criswell (1937), employing the sociometric choice technique with grade school children in New York, found that racial cleavage was not as potent as sex cleavage in the social structure of the classroom. Negroes began self-segregation prior to whites, forming into racially segregated groups by the 5th grade. It should be pointed out that in this study 75 percent of the group were Negro children. However, in a subsequent study, Criswell (1939) found similar tendencies where the Negro proportion was considerably smaller. She found sex and size of minority group were related to behavioral cleavage: girls tended to form racially isolated groups with an increase in the size of the minority, while boys tended to form "racial groups" as the size of the minority group decreased. One might conclude from these and other such investigations that while at first the child selects playmates and school chums on the strength of individual "tests," personal experiences, and *specific* pleasant or unpleasant situations, as he grows older his attraction or repulsion with respect to members of a given group is dependent upon the prior formation of generalized attitudes toward that group. The subtle forms of socially acceptable or objectionable intergroup behavior would seem to have been fairly well established before puberty in most children (Zeligs, 1948).

Determinants of Intergroup Attitudes

Under this heading we shall discuss a great variety of factors that are thought to have some causal significance for the development of favorable or unfavorable ethnic attitudes. We shall begin with influences external to the individual, such as cultural norms, continue with situations in which the individual may be involved, such as contact with minority group members, and conclude with factors operating within the individual personality.

CULTURAL AND GROUP NORMS

It is necessary to recognize that to a large extent intergroup attitudes form part of American cultural norms. Throughout the culture there is on the one hand the ideal of equal treatment and equal opportunity for all groups — what Myrdal (1944) describes as "the American Creed" — and on the other hand the established hierarchy of preference for different ethnic groups which is closely correlated with the differential treatment that these groups actually receive. There are also regional and other subcultural norms for intergroup attitudes, perhaps the outstanding example is the culturally prescribed attitude toward Negroes in the South There is conflict, of course, among these various norms, and a great deal of latitude is allowed for individual departure from them — more probably for deviant attitudes than for deviant behavior. Nevertheless, in most American subcultures and in most social groups individuals face a good deal of disapproval if they do not have the "right" ethnic attitudes. The pressures toward conformity are often subtle, but they are very real. MacIver (1948) sums up the situation in simple terms:

> However prejudice may first arise, a major determinant of its perpetuation is simply the tendency of the members of any group to take on the coloration of the established mores. (p 198)

PARENTAL INFLUENCES

Parents, of course, are the primary agents of socialization, and on them falls major responsibility for the transmission of cultural norms in this as in other areas. However, parents frequently have ethnic attitudes that deviate to some extent from the norm for their group, and in this case it is usually their own attitudes which they try to transmit to their children. We may speak in such cases of "family norms" for intergroup attitudes, and it is these norms to which the child must conform if he wishes to avoid parental disapproval.

A great deal of research has emphasized the crucial role which parents play in the formation of ethnic attitudes Horowitz and Horowitz (1938), for example, in a study of southern grade school children, found that parents were the primary source from which racial attitudes were learned. The younger children were aware that their own attitudes stemmed from those of their parents, but the older children were likely to forget the source and rationalize their attitudes in various ways. In spite of the last-mentioned fact, Allport and Kramer (1946) found that 69 percent of a large group of college students declared themselves to have been influenced to some extent by their parents' ethnic attitudes. Allport and Kramer found that a higher proportion of prejudiced than unprejudiced students reported taking over their parents' attitudes directly, and this was confirmed in a similar study by Frenkel-Brunswik and Sanford (1945). Among an array of investigations indicating the influence of parents or parent surrogates on intergroup attitudes are those of Lasker (1929), using information provided by teachers, parents, recreation workers, etc ; Meltzer (1941a,b), studying grade school children in the 8- to 13-year range, Katz (1947), studying Seventh Day Adventist high school students; Radke, Trager, and Davis (1949); Radke and Trager (1950); and Goodman (1952).

On the other hand, Kenneth B Clark, in an unpublished monograph, warns against weighing too heavily the role of parents in the transmission of interracial attitudes. He contends that symbols of racial discrimination, such as residential segregation and segregated schools and churches (implying the inferiority of Negroes), act as more powerful educators in interracial ways. He points out that children often develop hostile social attitudes in the face of parental as well as clerical admonitions of tolerance and brotherhood. The reverse pattern also frequently occurs, in which children develop democratic attitudes in the face of ethnic hostility in the home. It would seem that not only is there a subtle interplay between general cultural as well as family influences impinging on the child, but that particular children may develop specific attitudes contrary to the prevailing sentiments surrounding them.

EDUCATION, ECONOMIC STATUS, REGIONAL, AND RELIGIOUS INFLUENCES

Most of the studies in this area have been correlational in method, and few, if any, have

succeeded in disentangling the effects of numerous factors varying simultaneously in an uncontrolled fashion Rose (1948a) has ably summarized these investigations, and we shall not repeat his review of the literature The most consistent finding is a negative correlation between prejudice of all kinds and amount of formal education. However, at least one investigator (A A Campbell, 1947) reports a *positive* correlation between education and anti-Semitism in a national sample of respondents, and no correlation between anti-Semitism and income. When education is controlled, economic status usually shows a positive correlation with anti-Semitism (Harlan, 1942; Levinson and Sanford, 1944, Fortune Survey, 1946), although in Campbell's study (1947) the correlation would be negative. The relationship between economic status and attitude toward Negroes is not clear, perhaps because it varies with the type of question asked and the attitudinal components under investigation.

Within the United States anti-Negro prejudice is generally reported to be strongest in the South. However, for reasons which remain obscure, a few studies report no regional differences in attitudes toward the Negro Studies of regional differences in anti-Semitism have produced inconsistent results except for the finding that it is weakest in the South (Harlan, 1942, Fortune Survey, 1946, Fortune Survey, 1947).

Several investigators report the following rank order of religious groups with respect to anti-Negro attitudes. Catholics, most prejudiced, Protestants, next most prejudiced, Jews, and people with no religious affiliation, least prejudiced (Merton, 1940; Allport and Kramer, 1946, Bettelheim and Janowitz, 1950a). Other investigators have found little or no difference between white Catholics and Protestants in anti-Semitism (Harlan, 1942; A. A. Campbell, 1947; Bettelheim and Janowitz, 1950a, Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950). Attempts to determine the relationship between prejudice and measures of the strength of religious influences (such as frequency of church attendance) have produced conflicting results (Allport and Kramer, 1946; Bettelheim and Janowitz, 1950a; Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950)

Some of the apparent conflict in findings with regard to the strength of religious influences may perhaps be resolved by taking into account the differing churchgoing habits of the various religious groups, the relative degree of prejudice characterizing each group, and the religious-group composition of the populations studied. Thus Chein, in an unpublished study of the ethnic attitudes of New York City housewives, found an over-all *positive* correlation between anti-Negro attitudes on a seven-item social distance scale and frequency of church attendance. When the three major religious groups were considered separately, however, the over-all relationship broke down as follows: for the Catholics, there was a comparatively large *negative* relationship between anti-Negro attitudes and church attendance; for the Jews, a moderate *negative* relationship; and for the Protestants, *no* relationship. One may speculate about the meaning of these differences (e g., the psychological significance of nonchurch attendance among Catholics as compared with Protestants), but the important point is that an illusory positive relationship appeared in the total sample as a consequence of the relative number of Catholics in the total sample, the much greater frequency of church attendance among the Catholic housewives than among the other two religious groups, and the much higher level of anti-Negro prejudice among the Catholic housewives than among the housewives of the other two groups.

CONTACT WITH MEMBERS OF OTHER ETHNIC GROUPS

There is an interpretation of ethnic attitudes which holds that the primary factors in their development are the objective characteristics of ethnic group members — the so-called "well-earned reputation" theory of prejudice (Zawadzki, 1948). These characteristics are supposed to be observed through personal contact with members of the group in question or learned from other people who have had such contact. The ultimate source of ethnic attitudes, in this view, is always direct observation of the group members' behavior, and the affective and conative aspects of intergroup attitudes are supposed to be derived from the cognitive components.

The well-earned reputation theory, although popular with "the man on the street," does not square well with the results of empirical research. One main line of argument against the theory stresses the low degree of correspondence between common stereotypes of various ethnic groups and the actual characteristics of these groups insofar as the latter are known through scientific research. We have discussed this problem in a previous section of this chapter. A second line of argument stresses the frequent simultaneous occurrence of incompatible stereotypes regarding a particular group (Levinson

and Sanford, 1944), marked changes in stereotypes over a period of time without any known changes in the actual behavior of the group in question (Shrieke, 1936), and markedly different affective orientations toward groups about whom similar stereotypes are held (Saenger and Flowerman, in press). This line of argument holds that the cognitive components of prejudiced attitudes are primarily *rationalizations,* functionally dependent on a basic affective or conative orientation. Merton (1949b) states the case most eloquently.

> Did Lincoln work far into the night? This testifies that he was industrious, resolute, perseverant, and eager to realize his capacities to the full. Do the out-group Jews or Japanese keep these same hours? This only bears witness to their sweatshop mentality, their ruthless undercutting of American standards, their unfair competitive practices Is the in-group hero frugal, thrifty, and sparing? Then the out-group villain is stingy, miserly, and penny-pinching All honor is due the in-group Abe for his having been smart, shrewd, and intelligent and, by the same token, all contempt is owing the out-group Abes for their being sharp, cunning, crafty, and too clever by far. (p. 186)

A third line of argument against the well-earned reputation theory of prejudice points out that intergroup attitudes can be firmly held in the absence of any personal contact with members of the group in question or any association with people who have had such contact. Radke and Sutherland (1949) found well developed stereotypes of Negroes and Jews in a group of midwestern children who had had little or no contact with either of these groups. Rosenblith (1949), in a replication of the Allport and Kramer (1946) investigation, reports:

> In spite of the total absence of Negroes and Jews in the region, the prejudice scores toward these groups are higher in our South Dakota population than the scores obtained by Allport and Kramer at Harvard, Radcliffe, and Dartmouth. (p. 48)

The ultimate demonstration of this point has been made by Hartley (1946), who found that the great majority of his subjects had no difficulty in expressing attitudes toward three entirely fictitious ethnic groups. From the evidence available it seems that the oft-quoted statement of Horowitz (1936, pp. 34-35): "Attitudes toward Negroes are now chiefly determined not by contact with Negroes but by contact with the prevalent attitude toward Negroes" may be safely generalized to other ethnic groups as well.

Does personal contact, then, play no role in the formation of ethnic attitudes? Such a conclusion seems to us unwarranted. In the first place, it seems reasonable to believe that frequent contacts with members of other groups increase the *salience* of attitudes toward these groups (a dimension of intergroup attitudes which we have not attempted to treat systematically). Horowitz (1944) reports the results of a Fortune survey made in 1939 in which respondents were asked: "Is there any one group — racial, religious, economic, or social — in your city (county) who represents an important problem?" There was a definite correlation between the number of members of a particular minority group in a geographical region and the frequency with which the group was described as a "problem" by residents of that region Thus Negroes were most frequently mentioned in the South and the East, Jews in the Northeast and Middle West, Mexicans in the West, and Japanese on the Pacific Coast.

Jerome Seidman, in an unpublished study using the sentence completion technique, found very few *spontaneous* references to ethnic groups among 157 children in a small Maine town. This was particularly true for Negroes and Jews, who were not represented in the community. There is no contradiction between Seidman's results and those of Rosenblith (1949) or Radke and Sutherland (1949), since the latter investigators mentioned Negroes and Jews by name and asked specifically for attitudes toward them.

It seems also reasonable to believe that direct observation of ethnic group members over a period of time plays some role in the formation of stereotypes concerning them. This is the "kernel of truth" hypothesis (Klineberg, 1950) to which we have previously referred. Zawadzki (1948) argues for this hypothesis as a substitute for the well-earned reputation theory, which he rejects.

Finally, it seems probable that personal contact between members of different ethnic groups may play a decisive role in the formation of intergroup attitudes if the contact takes place under conditions of genuine cooperation or serious competition or conflict. Under these conditions it is not primarily the objective characteristics of the group members which are important, but the relationship of the two groups to each other. Evidence for the importance of cooperative contact comes almost entirely from experimental studies of attitude change, which will be reviewed later in this chapter. The general principle has been formulated by Robin Williams (1947) in the following terms. "Lessened hostility will result from arranging intergroup collaboration, on the

basis of personal association of individuals as functional equals, on a common task jointly accepted as worth while" (p. 69). Evidence for competition and conflict as determinants of ethnic attitudes comes mainly from nonexperimental studies, to some of which we shall now turn.

CONFLICT, COMPETITION, AND STATUS MOBILITY

Conflict among members of different ethnic groups reaches its peak in open warfare It seems almost a truism to say that such conditions exert an extremely powerful force toward the development of unfavorable intergroup attitudes. The hatred of warring nations toward each other is proverbial, and much of the hatred remains after the war is over. One example of the influence of open conflict on intergroup attitudes is to be found in the studies we have cited of changes in attitude toward Japanese and Germans during World War II on the part of American respondents (Dudycha, 1942; Seago, 1947; Meenes, 1943, 1950). Another example is the investigation by Dodd (1935) of ethnic attitudes in the Near East Dodd found that the amount of hostility shown by the different groups toward one another was closely correlated with the amount of recent group conflict. Thus the greatest hostility was shown by Armenians toward Turks, and by Palestinian Arabs toward Jews. A third example is found in the changes in attitude of Americans toward Russians from 1942 to 1948 (Buchanan, 1951).

Economic competition, either actual or potential, is a potent source of intergroup conflict, although within the boundaries of a single country efforts to restrict competition do not usually take the form of open warfare. The history of American immigration is full of riots directed against immigrant groups. The most active agents in these riots were usually people who felt economically threatened by the immigrants. In recent years the fear of economic competition has more commonly been expressed in the form of legal efforts to restrict immigration Probably the most consistent support for restrictive immigration legislation in the United States since 1900 has come from organized labor. It seems extremely likely, although it has not actually been demonstrated, that the perception of foreign immigrants as potential competitors has contributed to the development of unfavorable attitudes toward them.

Dollard (1938) has provided a simple and instructive example of the influence of economic competition on ethnic attitudes:

> A final case will be that of a group of Germans who invaded a small American industrial town in the early twentieth century Local whites largely drawn from the surrounding farms manifested considerable direct aggression toward the newcomers Scornful and derogatory opinions were expressed about these Germans, and the native whites had a satisfying sense of superiority toward them . . . The chief element in the permission to be aggressive against the Germans was rivalry for jobs and status in the local woodenware plants The native whites felt definitely crowded for their jobs by the entering German groups and in case of bad times had a chance to blame the Germans who by their presence provided more competitors for the scarcer jobs There seemed to be no traditional pattern of prejudice against Germans unless the skeletal suspicion of all outgroupers (always present) be invoked in this place. (pp. 25-26)

An ethnic group may become economic competitors through upward social mobility as well as by geographical migration. It seems fairly clear that there was more hostility — and certainly more violence — toward Negroes on the part of Southern white workers following the American civil war than there had been during the slavery period. Similarly, in the North there has typically been a hostile reaction on the part of white workers whenever Negroes were introduced into what had been considered "white men's jobs."

There have been throughout history many opportunities for the economic exploitation of one ethnic group by another. In these situations the attitudes of the dominant group toward the subordinate one have usually been friendly so long as the system of economic relations was not challenged, but have become hostile whenever the subordinate group attempted to improve its position The attitudes of Southern white plantation owners toward Negroes before and after the civil war illustrate this phenomenon, and also the attitudes of ruling minorities in colonial countries.

Agitation for the expulsion of ethnic groups from certain areas has often been initiated by people who hoped to take over the property of the group in question, or to eliminate them as economic competitors. McWilliams (1944) has shown that the evacuation of Japanese-Americans from the American West Coast in 1942 occurred in a context of such agitation, and there is good reason to believe that similar motives played a large part in the persecution of German Jews by the Nazis. Perhaps the clearest example of this phenomenon is the demand for the expulsion of dominant European mi-

norities which has been widespread in colonial areas since the end of World War II

Some Marxist writers have viewed ethnic prejudice as *entirely* the result of attempts at economic exploitation. Although such a simple and sweeping interpretation is undoubtedly wrong, there seems no doubt that the possibility of economic exploitation, where it exists, plays a crucial role in both intergroup attitudes and intergroup behavior.

There is a form of competition widespread in American society which is not strictly economic in nature. This is competition for prestige and social status. In the United States status depends primarily on economic success, and status mobility is high But there is also a hierarchical ranking of ethnic groups on the status scale, and this provides an element of stability in the social position of each group member. In these circumstances each individual member of a group which is not at the bottom of the prestige scale has a vested interest in maintaining the belief that individuals in lower ranking groups are intrinsically inferior. The strength of this vested interest is greatest for those individuals whose own status position is most insecure.

Bogardus (1928) believed that the main factor responsible for differential responses to various ethnic groups on his social distance scale was the desire to maintain or enhance one's status by cultivating associations with groups ranking high in the prestige hierarchy, and avoiding association with low ranking groups. Dollard (1937) concluded that the desire of white individuals to maintain their status was one of the major factors responsible for the persistence of anti-Negro prejudice in the Deep South He also found that this motive seemed to be most important in the poor white group A. A. Campbell (1947) found anti-Semitism most common among people who were dissatisfied with their own economic situation. Bettelheim and Janowitz (1950a), in their study of Chicago war veterans, found both anti-Semitism and anti-Negro attitudes most frequent among those whose economic status had declined from its prewar position. Those who had improved their economic status were more friendly toward both Jews and Negroes than those whose status had remained the same, except for a small group whose income had increased very markedly and who were more anti-Semitic than the general average.

An experimental study of the role of competition and conflict in the development of intergroup attitudes has been carried out by Sherif and Sherif (1953). The two groups in question were formed artificially at a boys' camp, but became strongly knit and very important for their members through a succession of group activities. After the groups were well established a program of intergroup competition was begun, which quickly led to the development of hostile feelings between the groups. When one group was made to appear to frustrate the other in a deliberate fashion, open conflict developed, which the camp counsellors had great difficulty in controlling. A program designed to restore friendly relations among members of the two groups was only partially successful The Sherifs (1953) report a similar, although less dramatic, experiment by Avigdor (1952) with groups of girls in a settlement house. Ratings of girls in other groups were most favorable when the groups were involved in mutually cooperative activities, and least favorable between groups placed in a situation of rivalry.

DISPLACED HOSTILITY

The general process of displacement of hostility, first described by Freud, has been examined in great detail by Dollard, Doob, Miller, Mowrer, and Sears (1939). Williams (1947) describes the conditions necessary for its occurrence in the following terms·

(a) Frustrations or deprivations are imposed by sources which are either.
  (1) difficult to define or locate, or
  (2) persons or organizations in a position of power or authority over the individual, or
  (3) persons to whom the individual is closely tied by affectional bonds.
(b) Aroused hostilities are blocked from direct expression against the sources of frustration.
(c) Substitute objects of aggression are available and are.
  (1) highly *visible,* and
  (2) *vulnerable,* i e, not in a position to retaliate. (p. 52)

Williams goes on to say.

> This is a widespread, recurrent, and important pattern of emotional structuring in human society and is widely recognized on the level of commonsense observation. Ordinary examples are legion· the child punished by his parents destroys a toy or maltreats his pet, the employee humiliated by his superior "takes it out" on his family, the defeated small businessman joins an antiminority movement. (p. 52)

Displaced hostility as a factor in ethnic prejudice has been especially emphasized by writers with a psychoanalytic orientation, such as Dol-

lard (1938), Brown (1942), Fenichel (1946), Sterba (1947), Bettelheim and Janowitz (1950a), and Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950). The most direct demonstration of its operation has been made by Miller and Bugelski (1948), who showed that prejudice toward Japanese and Mexicans among boys at a northeastern summer camp was increased by a frustrating experience imposed by the camp management

Displaced hostility is believed to play a part in variations in prejudice among the same individuals over a period of time (as in the Miller and Bugelski experiment), and also in the differing amounts of prejudice regularly occurring in different individuals. In this latter connection Lindzey (1950) showed that highly prejudiced individuals were more susceptible to frustration than less prejudiced ones, and Bettelheim and Janowitz (1950a) found that intolerant veterans experienced more frustration during their army service than tolerant ones, although there were no significant differences in the objective conditions to which the two groups were exposed. Morse (1947) and Gough (1951) found a similar relationship between prejudice and feelings of frustration and deprivation.

Since prejudiced individuals seem to experience more frustration in the course of their lives than unprejudiced ones, we might expect them to display more generalized hostility in their attitudes and fantasy life. Several studies indicate that they do, but the results of different investigations are not entirely consistent. Hayes (1949) found prejudice related to "aggression toward the environment." Mussen (1950) found a correlation of 39 between amount of aggression expressed on the Thematic Apperception Test by 106 white boys attending an interracial camp and amount of anti-Negro prejudice prior to the camp experience. This measure of aggressive tendencies correlated .56 with amount of anti-Negro prejudice expressed at the close of the four-week camp period.

Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950) found that prejudiced women expressed more aggression on the TAT than unprejudiced women, but prejudiced men portrayed less aggression by identification figures in their stories than did unprejudiced men, although they described more aggression on the part of secondary characters Lindzey (1950) found prejudiced men slightly higher than unprejudiced ones on two measures of outwardly directed aggression, however, they showed a *smaller* increase in aggressive responses following frustration than did the unprejudiced men, although they reported more intense frustration Lindzey's measures of aggressive tendency (the TAT and the Rosenzweig Picture-Frustration test) were general in nature, and he points out that the essential difference between individuals high and low in prejudice may lie not in any general tendency toward displacement of hostility, but rather in a specific readiness to displace hostility toward minority group members. To the extent that this channel was successfully used by prejudiced individuals to drain off their surplus hostility, we should expect to find them no more aggressive in other respects than the average person.

A crucial problem for any psychological theory in which displaced hostility plays a role is that of explaining the selection of a target for the hostile impulses. Two essential requirements for the target are described by Williams (1947) in the passage quoted at the beginning of this section. the target must be visible, and it must have little power to retaliate. Many ethnic groups have both of these characteristics. To explain why some particular group becomes the object of especially intense hostility on the part of certain people it is necessary to invoke additional hypotheses; we shall examine only a few of the large number which have been proposed.

Dollard (1938) argues that any group with which an individual is in direct competition or conflict is likely to become the object of displaced hostility as well:

> It appears that in the case of direct aggression there is always some displaced aggression accompanying it and adding additional force to the rational attack. Justifiable aggressive responses seem to break the way for irrational and unjustifiable hostilities . . The image of the incredibly hostile and amoral out-grouper is built up out of our own real antagonism plus our displaced aggression against him . . . (p. 19)

Another very general possibility is that an ethnic group may *symbolize* certain things which an individual detests. Thus it has been argued that hostility is frequently directed against Jews because they symbolize fraud (Ichheiser, 1944), or paternal authority (Levinger, 1936), or successful nonconformity (Tarachow, 1946), or urbanism (Browne, 1934, Rose, 1948b), or capitalism (Beard, 1942), or both capitalism and communism (Riesman, 1942), or the devil (Trachtenberg, 1943), or Christ and Christian morality (Maritain, 1939, Samuel, 1940; Friedrich, 1942). Each of these theories probably has some validity in explaining the attitudes of certain individuals; the diffi-

culty with them is that little or nothing is known of the conditions under which an ethnic group such as the Jews will be accepted as a symbol of some disliked practice or institution, and the conditions under which the symbolic equation cannot be made

PROJECTION

Many writers believe that an ethnic group is most likely to become a target for displaced hostility if it symbolizes some characteristic or tendency which the prejudiced individual rejects in himself. In this case the prejudiced person attempts to protect himself from the recognition of his own unacceptable tendencies by *projecting* them onto some group to whom they may plausibly be attributed Hostility which would otherwise be directed against himself can now be directed outwardly against the scapegoat group

The amount of perceptual distortion involved in a particular projection may be rather small, or it may be enormous Ichheiser (1947) has coined the term "mote-beam mechanism" for the former situation, it may be illustrated by the businessman who exaggerates the sharp practices of a Jewish competitor, which he vigorously condemns as a means of drawing his own and other people's attention away from his own dubious conduct Projection in its most extreme form may be found in the writings of German Nazis, who accused the Jews of every crime that they themselves were engaged in committing (and for which they presumably felt some guilt).

Ackerman and Jahoda (1950) made a study of anti-Semitism in individuals undergoing psychoanalytic treatment, and concluded "The mechanism of projection permeates the entire personality of the anti-Semite . . . For the anti-Semite, the Jew is a living Rorschach inkblot. His alleged and sometimes actual qualities are so manifold and so inconsistent, so ambiguous and indeterminate, that the anti-Semite sees whatever he needs to see in the Jew" (pp. 56 and 58).

We should mention at this point that projection plays an important role in some of the symbolic theories of anti-Semitic prejudice cited earlier. As Fenichel (1946) remarks· "Freud has taught us that everybody struggles all his life with repressed instincts which continue to exist in the unconscious; that among these original instincts, murderous tendencies and sexual impulses play the chief part, especially those sexual impulses which are considered objectionable, low, and dirty" (p. 19). According to psychoanalytic theory the devil symbolizes these repressed instincts, and when Jews are identified with the devil they are being assigned characteristics that the anti-Semite unconsciously recognizes and rejects in himself. Similarly, when Jews are accused of having killed Christ the attack on them serves to protect the anti-Semite from recognition of his own desire to revolt against the restrictions of Christian morality Insofar as the Jews are identified with both Christ and the killers of Christ, it becomes possible to attack and defend Christianity simultaneously through an attack on the Jews.

It is often argued that projection of repressed sexual impulses plays a large part in anti-Negro prejudice In the United States a considerable mythology has grown up around the theme of the Negro's alleged sexual prowess, and this serves to express the simultaneous desire for and fear of uninhibited sexuality on the part of the white group (Rose, 1948a). MacCrone (1937) has noted the sexual implications of the castration and mutilation of lynched Negroes, both in cases where the alleged crime was nonsexual as well as those in which it was sexual in nature. In punishing the Negro the white lyncher finds an outlet for all his displaced hostility and simultaneously combats his own repressed desire for free and primitive sexual expression. Halsey (1946) and McLean (1946) also support this viewpoint.

COGNITIVE FUNCTIONING

Some recent research has been based on the hypothesis that the development of ethnic prejudice is facilitated by general tendencies toward premature categorization, overgeneralization, and rigidity of thought It is by no means implied that such intellective factors are sufficient for the formation of attitudes, nor is it asserted that these patterns are completely consistent except in the most extreme groups. The most intensive studies in this direction have been carried out by Frenkel-Brunswik and her associates at the University of California. Testing 120 children between the ages of 11 and 16 who were found to be either very high or very low in ethnocentric attitudes, she found different intellective factors associated with each group (Frenkel-Brunswik, 1948). Among children high in prejudice there was a tendency to be "intolerant of ambiguity" (to become anxious or resist facts or situations that were not clearly structured), a tendency to dichotomize in their thinking about sex roles, and to regard position in the family in terms of hierarchical roles. Those low in prejudice were found to be

tolerant of ambiguity, to have egalitarian views toward the opposite sex, and to think in terms of individualized and equal-treatment roles in the family.

In a study of "generalized mental rigidity," Rokeach (1948) found ethnocentric subjects more likely to persist in a long-method solution of simple arithmetic problems when a short method was also available than were less prejudiced subjects Rokeach also found a consistently greater use of scratch paper by his prejudiced subjects, which he interpreted as evidence that ethnocentric persons tend to be more concrete and nonethnocentric persons more abstract in their thought processes.

Kutner (1950), working with 7-year-olds, and O'Connor (1952), with college undergraduates, found ethnocentric attitudes related to intolerance of ambiguity (an inability to face uncertainty in solving problems) and poor abstract ability, where intelligence was not a significant variable Kutner also found significantly fewer "Don't know" responses among his prejudiced than among his unprejudiced children, a result duplicating that of the Fortune Survey (1946) in a national sample of adults Rokeach (1951) reports a general "narrow-mindedness" and dogmatism among ethnocentric subjects.

One hypothesis concerning these findings is that reasoning ability and thinking patterns, although admittedly tied to intellectual capacities, are developed and modified by the individual's exposure to hierarchical family organization, rigid adherence to demands for conformity, and a desire to establish intellectual control over a potentially threatening environment. It is possible that general cognitive dispositions, once developed, may play a causal role in the formation of intergroup attitudes, but it is equally possible that whatever factors produce the cognitive dispositions may also shape the attitudes, with the cognitive dispositions only an incidental by-product.

PERSONALITY VARIABLES AND INTERGROUP ATTITUDES

A broad approach to the problem of determinants of prejudice is seen in a number of related studies of personality and character structure. Starting with the assumption that intergroup attitudes are but one facet of the many manifestations of individual personality organization, such investigators as Fromm (1941), Maslow (1943), Ackerman and Jahoda (1950), and Bettelheim and Janowitz (1950a) have studied the role of social attitudes in the economy of the total individual. Hartley (1946), Allport and Kramer (1946), and Gough (1951) have demonstrated a large number of personality factors and related attitudes that distinguish individuals high in prejudice from those who are generally unprejudiced. The most important of these studies is probably that of Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), who present both a vast amount of data and a theory of the development of prejudice which is in reasonable accord both with their own findings and those of other investigators. We shall quote at length from the section of their volume that presents conclusions regarding the etiology of intergroup attitudes:

> When we consider the childhood situation of the most prejudiced subjects, we find reports of a tendency toward rigid discipline on the part of the parents, with affection which is conditional rather than unconditional, i e., dependent upon approved behavior on the part of the child Related to this is a tendency apparent in families of prejudiced subjects to base interrelationships on rather clearly defined roles of dominance and submission, in contradistinction to equalitarian policies . . .
>
> Forced into a surface submission to parental authority, the child develops hostility and aggression which are poorly channelized The displacement of a repressed antagonism toward authority may be one of the sources, and perhaps the principal source, of his antagonism toward out-groups . . .
>
> Fear and dependency seem to discourage the ethnocentric child from conscious criticism of the parents. . . . Rigid repression of hostility against parents may be accompanied by an occasional breaking through of drives in a crude and unsocialized form; under certain circumstances this may become dangerous to the very society to which there seems to be conformity
>
> The fact that the negative feelings against the parents have to be excluded from consciousness may be considered as contributing to the general lack of insight, rigidity of defense, and narrowness of the ego so characteristic of high scorers. Since the unprejudiced child as a rule does not seem to have to submit to stern authority — a fact supported by interviews with the parents — he can afford in his later life to do without strong authority, and he does not need to assert his strength against those who are weaker. The "anti-weakness" attitude referred to above as characteristic of the prejudiced child seems thus to be directly related to the fearful submission to authority.
>
> It may be noted that the parents of prejudiced subjects not only seem to have been rigid disciplinarians, they also tended toward preoccupation with problems of status, communicating to their children a set of rigid and externalized rules. Status-concern may well be assumed to be the

basis of such a rigid and externalized set of values What is socially accepted and what is helpful in the climbing of the social ladder is considered good, and what deviates, what is different, and what is socially inferior is considered bad . .

As was pointed out above, the low scorer seems more oriented toward love and less toward power than is the high scorer The former is more capable of giving affection since he has received more real affection. He tends to judge people more on the basis of their intrinsic worth than on the basis of conformity to social mores . . .

As a child, he seems to have enjoyed the benefit of the help of adults in working out his problems of sex and aggression . . By virtue of the greater integration of his instinctual life, he becomes a more creative and sublimated individual. He is thus more flexible and less likely to form stereotyped opinions about others. He possesses a better developed, more integrated, and more internalized superego. He is able to express disagreement with, and resentment against, the parents more openly, thus achieving a much greater degree of independence from the parent and from authorities in general (Adorno, Frenkel-Brunswik, Levinson, and Sanford, 1950, pp. 482-484)

With this theory we come back to the influence of the parents in shaping intergroup attitudes, an influence which we first discussed at the beginning of this section. That discussion emphasized the direct role of parents in transmitting attitudes which they themselves held. The theory of Adorno, Frenkel-Brunswik, Levinson, and Sanford assigns the parents also an indirect role in the formation of attitudes through the development in their children of various needs, defenses, and habits of thought that are conducive to either a high or a low degree of prejudice. In this process the specific ethnic attitudes of the parents are unimportant.

We should emphasize that the possible indirect role of parents in shaping intergroup attitudes through the establishment of a particular kind of personality structure in their children has not yet been conclusively demonstrated, since the same parents who follow child-rearing practices thought to be conducive to the formation of "authoritarian personalities" are in general also the ones who have the greatest number of specific prejudiced attitudes to transmit directly. However, the correlation in parents between ethnic attitudes and child-rearing practices is far from perfect, so it should be possible to find parents matched for ethnic attitudes (and preferably also for social and economic characteristics) who differ radically in severity toward their children If under these conditions more authoritarian treatment by the parents was associated with greater prejudice in the children, the influence of parents on attitudes by way of personality structure would be well established.

Changing Intergroup Attitudes

If the study of ethnic relations had attained genuine scientific maturity, our discussion of this topic would be based squarely on our analysis of the major components of intergroup attitudes and their principal psychological and sociological determinants. However, we have not yet reached this stage of theoretical understanding There has been very little research on attitude change in which the effects of a specific experience on cognitive, affective, and conative orientations have been examined separately, and there has been equally little research in which attitude change was examined as a function of specific psychological processes rather than as a function of a particular stimulus situation. Since this is the case, our discussion of changes in ethnic attitudes will include very little consideration of which attitudinal components were changed in a particular experiment, and it will be organized around the various change-producing experiences that have been investigated rather than around the various psychological processes that were presumably at work.

GENERAL EDUCATION

Nearly all studies made in the United States have shown that people with large amounts of formal education tend to be less prejudiced than people with little education. One of the most comprehensive investigations was made by the National Opinion Research Center in 1944 (Samelson, 1945a,b) ./

However, the differences typically found among adults with differing amounts of formal education cannot be attributed simply to the effects of education *per se*. Individuals who attend college are known to be more intelligent and more "bookish," on the average, than individuals whose schooling stops with the sixth or eighth grade, and the social environments in which they grow up differ in many ways from those of the less fortunate. Better estimates of the effects of education on prejudice are provided by studies that compare students at different grade levels within the same institution, but these studies are also marred by the presence of uncontrolled factors which vary con-

comitantly with education itself. Chief among these uncontrolled factors are the whole range of extra-school experiences that occur as individuals grow older, and the tendency for a certain proportion of the less able and less interested students to drop out at the end of each school year College seniors have not only had three years more education than college freshmen, they are also, on the average, three years older and more highly selected in terms of academic interests and ability.

The best estimates of the effects of education upon intergroup attitudes are those provided by testing the same students at various points in their academic careers. Three studies of this type have been reported, all dealing with the attitudes of white college students toward Negroes.

Murphy and Likert (1938) tested 76 students at Columbia College and 53 at the University of Michigan in 1929 and again in 1934. In both groups attitudes toward the Negro became significantly more favorable during this five-year period. At the time of the initial test these students were enrolled in courses in general psychology If we assume that the average subject was at this time in his sophomore year, about half of the five-year period would have been spent on the average in further college work, and about half outside of college. The reasons given by respondents for their changes in attitude emphasized extra-school experiences and the impact of national and world events rather than academic influences; however, a number of subjects specifically mentioned college and professional education as important factors in the development of their attitudes.

Vernon Jones (1938a, b) followed 77 students at Clark University from the beginning of their freshman years in 1930 and 1931 to the end of their senior years in 1934 or 1935. These students showed no change on the average in their attitudes toward Negroes, although they became significantly more liberal on three other social issues.

Barkley (1940) found a slight *decrease* in favorable attitudes toward Negroes from fall to spring of the same academic year for 144 students at the Women's College of the University of North Carolina.

The only conclusion that can be drawn from these studies is that college education may or may not have a liberalizing effect upon the intergroup attitudes of students, depending on the nature of the students and the nature of the education.

SCHOOL COURSES

The situation is similar when we turn to investigations of the effects of specific school courses, except that in these studies reports of significant favorable changes in attitude outnumber the reports of insignificant changes or no change by about two to one. The different pieces of research are so unrelated to one another that it is very difficult to determine what factors are responsible for the variation in results. The reader is referred to Rose's monograph for a summary of the experimental literature (Rose, 1948a). Before attempting to evaluate it, we must discuss at some length the general relationship between amount of information about a particular ethnic group and favorableness of attitude toward that group.

"Amount of information" is equivalent to "number of correct beliefs," and any change in information regarding a particular group is automatically a change in the cognitive component of attitudes toward that group, since it constitutes a change in beliefs. However, the aspect of beliefs in which most research workers have been primarily interested is their degree of *favorableness* to the group in question, rather than their degree of *correctness,* and there is no necessary relationship between these two dimensions of the cognitive component of attitudes. When writers speak of the relationship between "information and attitudes," they nearly always have in mind the relationship between correctness of information and favorableness of attitude, assuming that this favorableness will be manifested equally in the cognitive, affective, and conative components of the attitude in question.

Most investigators have found that individuals with a large amount of information about a particular group tend to have more favorable attitudes toward that group than individuals with little information (Watson, 1929, Reckless and Bringen, 1933; Murphy and Likert, 1938; Nettler, 1946). However, Bolton (1935) found no relationship between information about and attitudes toward Negroes in a Southern women's college. Nystrom (1933) found a *negative* correlation of .50 among Filipino students between favorableness of attitude toward the United States and length of residence in the U. S. (Presumably the students who had been here longer were better informed about this country, particularly about American attitudes toward Filipinos.)

Where positive correlations are reported,

there is no way of knowing to what extent favorableness of attitude has resulted from increased information, increased information from more favorable attitudes, or both from other factors in the personality structure or social situation of the individuals concerned. The probable importance of these "other factors" is indicated in the finding by Closson (1930) of a correlation of .59 between general tolerance toward ethnic groups and general information (of all sorts) among 840 Iowa high-school students.

Zeligs and Hendrickson (1933) found a positive correlation among sixth-grade children between the ranking of an ethnic group on a social distance scale and the average amount of knowledge about that group Negroes provided a major exception to this correlation, since they were ranked lower than other groups about whom the children had much less knowledge Assuming that the acquisition of information about a particular group does in some circumstances influence the favorableness of attitudes toward that group, the nature of this influence must inevitably depend on the kind of information that is acquired

We have discussed the possible influence of information on favorableness of ethnic attitudes at this point because the main way in which school courses have usually attempted to influence intergroup attitudes is through the transmission of information about specific groups It seems safe to assume that a large part of the information presented in the classroom becomes part of the ethnic beliefs of the students. In the typical school course on intergroup relations the following conditions probably hold: (a) the information presented is more favorable to the ethnic group in question than the previous beliefs of the average student; (b) the instructor indicates to the students (directly or indirectly) that his own attitudes toward this group are more favorable than their own previous attitudes, and (c) the relationship between students and instructor is such that the students tend to accept the instructor's feelings and action orientation toward the group in question, as well as the information which he presents. In these circumstances, if appropriate measurement techniques are employed, students are typically found to show favorable changes in attitude as a result of the course. On the basis of the evidence at hand it seems probable, although by no means certain, that if any of these three conditions is lacking a school course on intergroup relations will not produce any significant favorable changes in ethnic attitudes.

EDUCATIONAL EXPERIENCES IN NONACADEMIC SETTINGS

Levinson and Schermerhorn (1951) studied the effects of a six-week intergroup relations workshop on the attitudes of 32 participants, mostly schoolteachers Although the group was quite unprejudiced to begin with, there was a significant further drop in the average level of prejudice by the time the workshop was over

A more ambitious study dealt with the effects of presenting a brief course on the Psalms in three different ways to Christian high-school students in church-sponsored summer seminars (Kagan, 1952). Rabbi Kagan's first method was to stick closely to the announced subject matter of the course, stressing the contribution of Jews to the development of Christianity and the relevance of the Old Testament to the moral problems of today. Taught in this manner, the course produced no significant changes in the students' attitudes toward Jews

The second approach was to use the Biblical material as the springboard for a discussion of anti-Semitism in the contemporary world. This produced a significant increase in favorable attitudes toward Jews The third approach was identical with the first in the conduct of class meetings, but these were supplemented by half an hour of individual discussion between the rabbi and each separate member of the class. The discussion centered around problems of discrimination against Jews in the United States This approach, like the second, produced significant reductions in the average level of prejudice.

EFFECTS OF SPECIFIC PROPAGANDA

Studies of the effects of specific propaganda, like those of school courses, have shown a wide range of results which can be correlated only roughly with variations in the stimulus situation. One of the most powerful propaganda media so far investigated is the motion picture. Four films dealing with ethnic groups were included in the original Thurstone studies of the effects of motion pictures on high-school children (Peterson and Thurstone, 1933) One of these was pro-German, one anti-Negro, one pro-Chinese, and one anti-Chinese. Three of the films produced large changes of attitude in the expected direction; one (the anti-Chinese picture) produced a small and statistically unreliable change in the expected direction. An important part of this research was the investigation of the persistence of the attitude changes that occurred. In the case of the pro-Chinese and anti-Negro films subjects were tested again

five months after seeing the pictures; 62 percent of the original net change remained. Another group of subjects was tested 19 months after seeing the pro-Chinese picture; 60 percent of the original net change remained.

During World War II a very extensive investigation was made of the effects of the army orientation film "The Battle of Britain" (Hovland, Lumsdaine, and Sheffield, 1949). The initial effect of the film was to produce a substantial increase in the proportion of soldiers who agreed with some of the specific points emphasized in the picture; for example, the proportion who answered "The British Royal Air Force" to the question: "In your opinion who gave the Nazis their first real defeat?" was 45 percent in a group of 450 soldiers who had just seen the film, and only 21 percent in a matched group of 450 who had not seen it However, in the experimental group the average increase in favorable responses on six questions designed to measure general attitudes toward the British and their part in the war effort was only three percent — a statistically unreliable change.

Somewhat different results were found for a group of 250 soldiers who were tested nine weeks after seeing the picture. In this group the proportion who thought the RAF gave the Nazis their first real defeat was only seven percentage points greater than the proportion in the corresponding control group, but the average increase in favorable attitudes toward the British was eight percentage points instead of three. Passage of time seemed to produce a regression of various specific attitudes back toward their initial position, as in the Thurstone studies; however, the amount of attitude change toward the British in general seemed actually to increase with the passage of time, although this "sleeper effect" is not statistically reliable.

The Battle of Britain seems to have been considerably less effective than the Thurstone pictures in changing intergroup attitudes. One suspects that the difference is not due primarily to any intrinsic lack of persuasive power in the film, but rather to the greater sophistication and resistance to propaganda of soldiers as compared with high-school students. It is also possible that, as a result of intense and prolonged debate on American foreign policy, attitudes toward the British were more firmly crystallized in 1943 than attitudes toward the Chinese, the Germans, or the Negroes had been in 1930.

Rose (1948a) reports a similar study made by the Information and Education Division of the U. S. War Department during World War II in which a shorter film than the Battle of Britain was more effective in changing attitudes toward the Chinese:

> In increasing favorableness of soldiers' attitudes toward the Chinese as fighting allies, a film was found to be more effective than each of four lectures which covered roughly the same material. The two lecturers who used a free delivery were more effective than the two lecturers who used a prepared speech. The net total attitude shift caused by the film was 17 percent, by the free delivery lectures was 16 percent, by the prepared lectures was 10 percent. (pp. 108-109)

Cooper and Dinerman (1951) studied the effects of another army film "Don't Be a Sucker" on a large group of New York City high-school students several years after the end of World War II. This picture had two main themes (1) the Nazi regime had been disastrous for German Catholics and Protestants, as well as Jews, and (2) Americans should be on their guard against a repetition of the same pattern in the United States. The first theme was successful with the special groups to whom it was addressed — i.e., Catholic students who had seen the film were much more likely than those who had not to say that German Catholics suffered under Hitler, etc However, the second theme had no demonstrable effect.

Rosen (1948) found a large and statistically reliable reduction in anti-Semitism among a group of 50 gentile college students who saw the film "Gentleman's Agreement." It is worth mentioning that Rosen, like Thurstone, used as his measure of prejudice scores on an attitude test [the California Anti-Semitism Scale (Levinson and Sanford, 1944)] rather than a series of specific questions, each treated as a discrete variable, in the manner of Hovland, Lumsdaine, and Sheffield (1949) and Cooper and Dinerman (1951).

Similar to the motion picture in attitude-changing power is the propaganda lecture. Chen (1933, 1936) studied the effects of short speeches dealing with the Sino-Japanese war in Manchuria on the attitudes of college students. Groups hearing pro-Chinese speeches showed large changes in the pro-Chinese direction, groups hearing pro-Japanese propaganda showed large changes in the pro-Japanese direction. Groups hearing supposedly neutral speeches showed small changes in the pro-Japanese direction. Groups hearing no speeches showed no significant changes in attitude. The amount of attitude change found by Chen was comparable to that found by Peterson and Thurstone for their motion pictures, but the durability was much less. A retest by Chen 5½

months after presentation of the propaganda showed that the mean attitude in most groups had shifted nearly back to its original position.

Oral propaganda is not always effective. Two studies by the Commission on Community Interrelations of the American Jewish Congress showed that antiminority remarks made in public places may or may not produce slight changes in attitude, depending upon the situation involved and the group being attacked. Answers to such remarks were shown in some situations to result in slight decreases in prejudice, in other situations the answers had no demonstrable effects (Citron, Chein, and Harding, 1950, Harding, Citron, and King, 1953).

Face-to-face speeches are usually found to be more effective than radio presentation of the same material, and radio broadcasts are usually more effective than written or pictorial presentation (Wilke, 1934, Cantril and Allport, 1935; Knower, 1935, 1936; Elliott, 1936, cf. Chapter 28). However, Rose (1948a) reports a study by the Information and Education Division of the U. S. War Department in which a lecture-discussion program was ineffective in changing opinion regarding the probable length of the war against Japan unless it was preceded by a radio program of either the dramatic or the news commentator type.

The authors do not know of any studies of the effectiveness of radio broadcasts in changing attitudes toward ethnic groups. One investigation of a broadcast dealing with the Nuremberg trials showed significant changes in attitude toward American fascists and near-fascists among Jews, but not among non-Jews (Wilson, 1948).

Peregrine (1936) found large favorable changes in attitudes toward Negroes among 299 Indiana high-school students who were required to read three stories favorable to Negroes. These results were confirmed in a similar study of 324 high-school students with the same materials (Hall, 1938). Hall also found that 53 percent of the initial effect of the stories remained after a six-month period.

However, a somewhat similar story about a Jewish boy in Germany under the Nazis was much less effective in changing the attitudes of college students (Remmers and Morgan, 1936). Only when classroom discussion followed the reading of the story did attitudes toward Jews become significantly more favorable. One difficulty with this story was that the hero and his family were not clearly identified as Jewish.

Very poor results were found with "protolerance" propaganda mailed to 33 veterans who had been intensely interviewed in the course of another study (Bettelheim and Janowitz, 1950b, see also Rose, 1948a, p. 10) A majority of the less prejudiced veterans simply threw the material away, the more prejudiced individuals identified the propaganda as being "Jew-inspired," and some of them indicated shifts in the direction of greater anti-Semitism as a result of reading it. Only six out of the 33 veterans thought that such material would be effective in modifying other people's attitudes. On the other hand, 18 out of a comparable group of 33 veterans who were mailed anti-Semitic pamphlets thought that this material would be effective in modifying other people's attitudes, although only ten approved of these pamphlets.

Investigations of the effects of specific propaganda using student subjects have typically found substantial changes in ethnic attitudes resulting from the propaganda, while studies using adult subjects have more commonly reported changes which were both small and statistically unreliable. We have already suggested that students may be more susceptible to propaganda in general than adults, perhaps because their attitudes are in general less firmly crystallized, however, an equally likely possibility is that any propaganda presented to students is typically identified by them as bearing the stamp of approval of school authorities, whatever the experimenter may say to the contrary. If this is the case, such propaganda could be equally successful with adults only if it were identified as coming from an equally well-accepted source.

INTERGROUP CONTACT

Studies of the effects of face-to-face contact on intergroup attitudes have usually employed *ex post facto* experimental designs, with interviewing of experimental and control groups occurring only *after* the experimental groups have had the contact experience being investigated. A crucial point in each of these studies is the validity of the assumption that experimental and control groups were initially similar in the attitudes being investigated. In this review we shall not cite studies in which the assumption of initial similarity in attitudes is clearly incorrect.

The most dramatic changes in attitude as a result of intergroup contact have been observed in situations in which two different ethnic groups both lived and worked together in circumstances requiring a high degree of mutual cooperation. The general policy of the U. S. Army during World War II was to keep Negro troops out of combat assignments; however, in

the spring of 1945 platoons of Negro riflemen were assigned to some of the infantry companies in eleven combat divisions operating in Europe. A survey several months later (Information and Education Division, 1947) showed that 64 percent of the white enlisted men in companies to which Negro platoons had been assigned thought that this was a good general policy for the army to follow, in contrast, only 18 percent of the enlisted men in divisions that contained no Negro combat platoons thought that Negro platoons would be a good idea. Sixty-two percent of the enlisted men in these latter divisions said they would dislike very much serving in a company with a Negro platoon, while only seven percent of the men who had had this experience said they would dislike it very much.

Brophy (1946) found a similarly striking reduction in anti-Negro prejudice among white merchant seamen who had shipped one or more times with Negro sailors. Thirty-three percent of those who had never shipped with Negroes were rated as unprejudiced on a ten-item attitude scale. This proportion increased to 46 percent for those who had shipped once with Negroes, 62 percent for those who had shipped twice, and 82 percent for those who had shipped five or more times. Unfortunately, there were in all probability differences in initial attitude toward Negroes in these various groups. Nearly all the men who had shipped two or more times with Negroes were members of a union with a militant antidiscrimination policy. It is quite possible that their attitudes toward Negroes influenced their choice of a union, and union policy was the decisive factor in determining whether or not a ship's crew included Negroes

Studies of residential contact between different ethnic groups in noncompetitive, equal-status situations have also shown substantial favorable changes in attitude resulting from such contact. Deutsch and Collins (1951) found that 53 percent of the white housewives in two integrated interracial public housing projects favored a policy of interracial integration for city housing projects in general, while only five percent of the white housewives in two segregated projects favored such a policy. The experience of interracial living also made these housewives more willing to accept Negroes as fellow workers on a job, as fellow members in an informal social club, as schoolmates for their children, and more ready to accept a Negro as mayor of their city. There were probably some differences in initial attitude toward Negroes among housewives in the two types of project, but the authors were able to show that these differences could not have produced more than a small part of the differences in attitude found after several years of living in the projects.

The Deutsch and Collins study provides an unusual opportunity to examine the functional relationships of intergroup attitudinal components, since they included in their interview schedule questions and rating scales designed to measure separately cognitive, affective, and conative orientations. We have already described their main findings on conative orientation. On the cognitive side, Deutsch and Collins report that according to the ratings of their interviewers 57 percent of the housewives in integrated projects had a favorable opinion of the characteristics of Negroes in the projects, and 36 percent had a similar opinion of Negroes in general. The corresponding figures for housewives in segregated projects were 26 percent and 15 percent. On the affective side, 39 percent of the housewives in integrated projects had predominantly friendly feelings toward Negroes in the projects, and 27 percent had similar feelings toward Negroes in general. The corresponding figures for the segregated projects were 8 percent and 7 percent.

These figures indicate that the experience of living in integrated housing projects produced changes in beliefs about Negroes and changes in feelings about Negroes, as well as changes in policy orientation toward them. The changes seem to have been greater for attitudes toward Negroes in the projects than for attitudes toward Negroes in general. Deutsch and Collins go on to comment:

> The findings for the segregated projects support our suggestion . . . that more intimate experiences are necessary to effect a change in feelings than to bring about a change in beliefs. The lack of difference in the segregated projects between friendliness for the Negro people in the project and for the Negro people in general probably indicates no change in feelings; on the other hand, the differences in the segregated projects between the percentage indicating respect for the Negro people in the project and the percentage indicating respect for the Negro people in general probably indicates some change in beliefs. (pp. 90-91)

If we generalized this interpretation to ethnic attitudes of all sorts, we would conclude that a change in feelings toward some specific group usually involves also some change in beliefs about that group, but that a change in beliefs may occur without any corresponding change in feelings. The latter part of this hypothesis is supported by various studies of the effects of educational experiences on attitudes (Rose, 1948a), especially one by the National Educa-

tion Association (1932). The former part of the hypothesis, specifying a functional dependence of beliefs on feelings, is compatible with everything we know of the nature of intergroup attitudes, however, it cannot as yet be regarded as well established

It is plausible to postulate a relationship between action orientation toward a particular ethnic group and feelings about the group similar to the relationship between beliefs and feelings. The Deutsch and Collins study provides an example of a situation in which substantial changes in feelings were accompanied by rather widespread changes in action orientation, although we do not know as yet whether similar conative changes would occur in other situations in which affective orientation changed markedly Harding and Hogrefe (1952) report a situation in which a sizeable change occurred in action orientation toward one specific type of relationship with Negroes although there were no observed changes in other conative orientations or (apparently) in feelings toward Negroes These authors found that white department store employees who had worked with Negroes on an equal-status basis were significantly more willing to continue such a relationship in the future than were those who had never worked with Negroes, but they found no evidence for any other attitudinal differences between the two groups. Harding and Hogrefe interpret their findings in the following manner:

> The most plausible explanation of the attitudes of the equal-status contact respondents is that the great majority of them have simply accommodated to a situation in which they found themselves, without any change in their basic orientation toward Negroes . . . The reasons given by equal-status contact respondents for being willing to work on a par with Negroes in a new job are quite illuminating. Nearly half do not give any reason for their attitude The great majority of those who do give a reason — 25 respondents out of 33 — say simply "I've done that and had no trouble," or "I'm doing it now." (p. 26)

Deutsch and Collins (1951) also provide some data on a related problem — the extent to which changes in attitude toward one ethnic group tend to be accompanied by similar changes in attitude toward other groups. Their interview schedule included five social-distance questions asked with regard to Negroes, Chinese, and Puerto Ricans. The latter groups were almost entirely absent from the projects, so that any differences in attitude toward them in the integrated projects as compared with the segregated ones must be attributed either to the effect of the somewhat greater initial liberalism of the tenants in the integrated projects, or to the effect of a functional relationship between attitudes toward these groups and attitudes toward Negroes.

Deutsch and Collins found large differences in attitudes toward Negroes on all five social-distance questions, with the largest difference occurring in willingness to have Negroes as tenants in the same building. Attitudes toward Puerto Ricans were slightly more favorable in the integrated projects, but no more so than would be expected from the differences in education and political liberalism in the two types of project. Attitudes toward Chinese were substantially more favorable in the integrated projects, especially with respect to willingness to have Chinese as tenants in the same building. The differences in attitude, although smaller than the differences in attitude toward Negroes, were much too large to be explained in terms of sampling error or in terms of initial differences in attitude between tenants in the two types of project. Deutsch and Collins conclude that among the housewives they studied there was some functional relationship between attitudes toward Negroes and attitudes toward Chinese, but little or no functional relationship between attitudes toward Negroes and attitudes toward Puerto Ricans. A large number of investigations of this type will be needed before it is possible to reach any general conclusions about the circumstances in which attitudes toward two different ethnic groups are functionally interdependent and the circumstances in which they are not.

Returning to studies of the effect of residential contact between members of different ethnic groups on attitudes toward the groups concerned, we find at least two in which findings similar to those of Deutsch and Collins are reported Wilner, Walkley, and Cook (1952) compared white housewives living near Negro families and those living far from Negro families in four public housing projects in four different cities. The differences between "near" and "far" respondents were of the same nature as the differences found by Deutsch and Collins for respondents in integrated as compared with segregated projects, but considerably smaller in size. Wilner, Walkley, and Cook attribute this to the reduced range of variation in opportunities for contact with Negroes among their subjects as compared with those of Deutsch and Collins. Irish (1952) found that Caucasian residents of Boulder, Colorado, who had had Japanese-American neighbors during the war were significantly more favorable toward Japa-

nese-Americans several years later than were similar residents who had not had Japanese-American neighbors.

The results of intergroup contact are quite different, however, in residential areas which are being "invaded" by Negroes. In this situation the white residents typically perceive the presence of Negro families as a serious threat to their own social status, and their attitudes become more unfavorable (Kramer, 1951; Winder, 1952).

Intergroup contact in a work situation seems to be considerably less effective than contact in a residential situation in producing attitude change. We have already referred to an investigation of this problem by Harding and Hogrefe (1952). Two other studies have shown significant differences in intergroup attitudes resulting from work contacts (an unpublished study by the American Jewish Committee, 1948, Merton, West, and Jahoda, 1949), while two have not (Irish, 1952; Deutsch and Collins, 1951, as cited by Harding and Hogrefe, 1952, pp. 27-28).

Evidence on the effects of intergroup contact in educational situations is also conflicting Smith (1943) found a very substantial increase in favorable attitudes toward Negroes among Columbia Teachers College students who spent two weekends on guided tours of Harlem. The tours included a number of social gatherings arranged so as to be enjoyable for the students and to emphasize the high cultural level of their Negro hosts. Donald Young (1932) arranged a similar program of contacts with Negroes in addition to a course in American race relations for 16 graduate students in sociology. Course and contacts together produced a small and statistically unreliable average increase in favorable attitudes toward Negroes.

Williams (1934) found results similar to those of Smith for 15 white high-school girls participating in an interracial project conducted by the New York City YWCA. However, an educational tour of Japan produced no significant changes in favorableness of attitude toward the Japanese among a group of California high-school students, even though it resulted in a very large increase in information (National Education Association, 1932).

Only one study seems to have been made of the effects of intergroup contact occurring in the course of ordinary school activities. Horowitz (1936) compared the attitudes toward Negroes of 11 white sixth-grade boys in a mixed New York city school with those of a much larger group of New York city boys of the same age attending two all-white schools. On the Ranks and Show Me tests the two groups of boys displayed the same attitude, but the boys from the mixed school showed a slight preference for interracial social situations as compared with all-white ones, while the boys from the all-white schools showed a substantial preference for all-white situations.

Two studies have been reported of the effects of interracial contact in recreational settings. Mussen (1950) found no change in the over-all distribution of attitudes toward Negroes among white boys after a four-week stay in an interracial summer camp. However, he found that boys with strong aggressive needs and unfavorable attitudes toward authority showed a significant tendency to become more anti-Negro following the camp experience, while boys with relatively few aggressive needs and more favorable attitudes toward authority showed a significant tendency to become more favorable toward Negroes. The camp experience produced significant changes in attitude in many of the boys, but unfavorable changes were as frequent as favorable ones.

Hogrefe, Evans, and Chein (1947) found that white children who had attended an interracial play center once a week for several months did not differ from a control group in attitudes toward Negroes as measured by a test of the social distance type. However, a projective test which we have previously described (The Movie Story Game) showed a larger proportion of play-center children either favorable to racial segregation in play situations or strongly opposed to such segregation.

CHANGES IN GROUP MEMBERSHIP

Among the most powerful influences on the original development of ethnic attitudes are those exerted by the various social groups in which an individual finds membership. It is consequently to be expected that when an individual finds himself in a new group whose standards vary markedly from his previous ones with regard to ethnic relations, there will be a strong tendency for his own attitudes to change. This process has been studied most directly in the case of Northern students attending a Southern college (Sims and Patrick, 1936). These authors found, to begin with, that white students from Northern homes attending a Northern college had much more favorable attitudes toward Negroes than white students from Southern homes attending a Southern college. White students from Northern homes attending the same Southern college occupied an intermediate position, and the degree of favorableness of their attitudes was strongly influenced by the

number of years they had been in residence at the Southern college Freshmen in this group held attitudes only slightly less favorable to the Negro than those of Northern college freshmen, while juniors and seniors had moved nearly all the way to the position of their Southern classmates.

In a study which we have already cited, Brophy (1946) found very large differences in attitudes toward Negroes among white seamen belonging to three different unions However, it is impossible to determine from the data he presents how much of these differences can be attributed to the influence of union membership *per se*, how much to the influence of differing amounts of personal contact with Negroes, and how much to the influence of prior attitudes toward Negroes. Horowitz (1936) found a complete lack of anti-Negro prejudice among a group of children living in a New York City housing project run under communist auspices. Gundlach (1950) found a very low degree of prejudice against Negroes among a group of white female factory workers in New York City who belonged to a left-wing union with a militant antidiscrimination policy. Gundlach's factory workers were significantly less prejudiced than white housewives in nonsegregated New York City housing projects (Deutsch and Collins, 1951), although the latter came from the same social class and had as great or greater opportunities for personal contacts with Negroes. Gundlach's subjects had had no option about joining the union, nor about which union to join.

Evidence of a quite different sort is presented in a study of 45 New York City residents who reported that at some time in their lives there had been a marked change in their attitudes toward Negroes or Jews (Watson, 1950). These people were intensively interviewed about the circumstances associated with their changes in attitudes, and half of them reported that the change had been preceded by their entry into a new institutionalized group whose standards were different from their previous ones. The experiences most commonly reported under this heading were taking one's first job, going to college, and entering the armed services. A considerable additional number of respondents associated their changes in attitude with a change in geographical residence which, of course, resulted in a variety of new group memberships.

Watson also found that for four-fifths of her respondents attitude change was associated with some new personal contact with members of the group toward whom the revision of attitudes occurred. Of 23 respondents who had had new contacts with Negroes or Jews of at least equal status to their own, 21 had changed their attitudes in a favorable direction. Of 14 respondents who had had new contacts with Negroes or Jews in lower-status positions, only four had become more favorable toward them, while ten had become less favorable. Although the number of cases involved is small, this is probably the best evidence available on the differential effects of equal and unequal status contact between members of different ethnic groups.

Changing Intergroup Behavior

When we turn to the consideration of changes in intergroup behavior we enter an area in which little experimental research has been carried out. However, it seems fairly clear that at the level of the single individual, changes in intergroup attitudes and changes in intergroup behavior occur without very much relationship to one another. This generalization is a necessary consequence of a conclusion reached earlier in this chapter: Intergroup behavior is primarily determined, not by intergroup attitudes, but by other motives in the individual interacting with the circumstances in which he finds himself.

It is difficult to find studies in which *changes* in intergroup attitudes have been compared with changes in intergroup behavior. Kagan (1952) reports that Christian students whose attitudes toward Jews had changed as a result of his seminars were more likely to defend Jews later in group discussions than those whose attitudes had not changed. They were also somewhat more likely to answer individual anti-Semitic remarks, although this difference is not statistically reliable.

Harding and Hogrefe (1952) studied a group of white department store employees whose behavior toward Negroes had changed in the sense that they were now working with Negroes on an equal-status basis, although very few of them had ever done so before. There was no evidence of any changes in attitude toward Negroes among these employees except in the specific area of work relationships; even in this area only a quarter of the group could be said to have changed their attitudes, although nearly all of them had changed their behavior.

There have been a few studies in which investigators have attempted to produce and measure changes in intergroup behavior without much

regard for changes in intergroup attitudes. One investigation involved a group of delinquent and semidelinquent Italian boys who were provided with money and assistance from a skilled group worker in establishing a cellar club (Hogrefe and Harding, 1946). The authors report a very marked reduction in fights with Negroes and Jews following the establishment of the club, although there were no observable changes in attitudes toward these groups. Unfortunately, the method of investigation in this study was informal and impressionistic rather than exact.

Two pieces of research deal with the behavioral effects of a course on answering anti-minority remarks (Citron and Harding, 1950, Citron, Hogrefe, and Harding, 1952). In the first experiment the course was given to six groups of Jewish women, all of whom showed a striking improvement in ability to answer in a test situation. In the second experiment the course was given to ten groups who varied widely in age, sex, religious affiliation, and educational background. These groups showed on the average the same improvement in ability to answer in a test situation as had the groups in the previous experiment. Sixteen course graduates in this study were also tested in a "real-life" situation which they did not realize had been arranged for this purpose. Nine of the sixteen made an adequate answer in this situation, while the rest remained silent. In a control group of 15 subjects similarly tested no one attempted an answer.

An extensive investigation has been made of the effects of an intergroup relations workshop for community leaders sponsored by the Connecticut State Interracial Commission (Lippitt, 1949). Thirty-two participants were interviewed before and after the workshop experience, and for nearly all of these individuals two additional informants made independent reports both before the workshop and several months afterward The most striking change following the workshop was the increased level of activity of the participants. Two-thirds reported that they were spending more time on intergroup relations activities than before the workshop, and three-fourths were reported by their associates to be spending more time. The increase in activity was greatest for individuals who attended the workshop in teams of six or seven members from a single community. Lippitt attributes this primarily to the effects of mutual reinforcement among team members after the close of the workshop.

Action Programs

In view of the great concern that psychologists and sociologists have shown with the improvement of intergroup relations in the United States, it seems fitting to close this chapter with a few comments on programs of action directed toward this end. For a full discussion of such programs the reader is referred to the excellent analyses by Watson (1947), Williams (1947), MacIver (1948), Allport (1952), and Saenger (1953).

Action programs may be aimed primarily at changing intergroup behavior, or at modifying ethnic attitudes. These goals are, of course, complementary, since it seems reasonable to assume that in the long run (though often not in the short run) any change in behavior is likely to result in some modification of attitudes, and vice versa. The changes in behavior that are usually sought are the elimination or reduction of discrimination, segregation, and physical violence between members of different ethnic groups.

Physical violence — whether in the form of "incidents," lynchings, pogroms, or race riots — occurs most frequently during periods of great social stress and among people living under conditions of economic hardship (Chicago Commission on Race Relations, 1922; Raper, 1933, Landman, 1939; Lee and Humphrey, 1943; Pinson, 1946). Any general improvement of social and economic conditions may reasonably be expected to have beneficial results in this area. The most effective short-term measures for the prevention or reduction of violence are repressive in nature. Weisberg (1951) has demonstrated the crucial role of the police force in situations of potential or actual ethnic violence. Many police training programs have been set up in recent years, following the pioneering work of Joseph Lohman (1947).

Most social scientists seem to be agreed that legally enforced segregation has very damaging effects on intergroup relations (Deutscher and Chein, 1948). A great deal of effort, much of it successful, has been devoted to the judicial annulment of segregation laws in force in various American states. In other states an equal amount of effort has been devoted to the enactment of laws prohibiting discrimination and segregation. It seems perfectly clear that the enactment or repeal of legislation in this field typically produces large changes in intergroup

behavior on the part of great numbers of people (Myrdal, 1944; Berger, 1952, Maslow and Robison, 1953).

In addition to these legal efforts there is a tremendous variety of other methods by which interested groups in most large communities attempt to bring about a reduction in ethnic segregation and discrimination. Perhaps the most interesting of these for the social scientist is the community self-survey technique developed by Charles S Johnson and his associates at Fisk University (Selltiz and Wormser, 1949, Wormser and Selltiz, 1951).

Programs aimed primarily at changing ethnic attitudes have usually worked either through the educational system or the mass media of communication The most common educational activities have been programs of teacher training and the development of specific school courses, or sections of courses. An account of one large-scale program in this area is provided by Cook (1950). Intercultural education is now a standard part of the curriculum in a great many public school systems. Unfortunately, very little is known about the effectiveness of most of these educational programs.

Efforts to change ethnic attitudes through the mass media of communication have been rather sporadic, mainly because of the tremendous cost of the media that are usually considered most effective (motion pictures, radio, and television), and because of doubts about the power of these media to produce lasting changes in the ethnic attitudes of adult audiences A good analysis of problems in the use of mass media is that of Flowerman (1947).

From the standpoint of "social engineering" there seems to be general agreement that a variety of methods may be fruitfully employed simultaneously for the improvement of ethnic relations. The argument for a many-sided approach has been eloquently stated by Allport (1952).

> Since the problem is many-sided there is no sovereign formula, nor any single method so effective that it commands our primary allegiance The wisest thing to do is to attack all fronts simultaneously. If no single attack has large effect, yet many small attacks from many directions can have large cumulative effects. They may even give the "system" a push that will lead to accelerated change until a new and more agreeable equilibrium is attained. (p. 40)

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CHAPTER 28

Effects of the Mass Media of Communication

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One of the most striking characteristics of the twentieth century is the fact that we live in an age of mass communication. Newspapers, radio, television, motion pictures, cheap magazines, and pocket-sized books have become the principal purveyors, in our society, of fact, fiction, entertainment, and information.

The technological revolution in production and distribution that has made mass communication possible on such a scale is of relatively recent origin. Fifty years ago three of the most potent of the mass media were practically unknown; and the other, the cheap press, had not yet reached the proportions it has presently assumed.

The rapid rise of the mass media, their ubiquity, and their potential influence have led many to wonder about the actual role they play in social life and behavior. Some writers suggest that mass communications are all-powerful, that they determine thought and action to a major degree. These persons cite the tremendous impact of propaganda during World War I, when the newspapers "got us into war." They also point out that advertising, via the mass media, has become a vital factor in our way of life.

Other analysts, however, are inclined to minimize the effects of the mass media. They point to the fact that many political candidates, enthusiastically supported by the press, are not actually elected to public office and, in general, they regard many interpretations of the power of the mass media as being quite extreme.

The existence of widely differing opinions concerning the effects of the mass media highlights the pressing need for further objective research. Indeed, the editors of the most recent book of readings in this field believe that investigation of "effects" is "the most neglected area in communication research" (Berelson and Janowitz, 1950, p. 395).

Considerable research on the effects of communication has already been done, but much of it is of a practical rather than of an analytical or theoretical character. At the same time there is a growing body of data on basic principles of communication that are relevant to the effects of mass media. The purpose of this chapter, then, is to summarize some of the major studies and to relate the large number of empirical findings to basic principles of communication analysis. In the first section there will be a brief review of some of the principal studies of the major media during the last decades. In the second section analytical studies attempting to assess the major influences affecting the impact of communications will be discussed. Here the concern will be with the nature of the communicator, the communication, the medium, and the audience. This section will conclude with a brief review of the variety of different types of behavioral change subsumed under the rubric "effects."

Numerous definitions of mass media have been advanced. Wiebe (1952b) restricts the term to media which are readily available to *most of the public,* "including a sizable number of people in all major subgroups," and whose "cost is so small to the individual that they are available to these same people in a financial sense" (pp. 164f.). For many purposes this is a useful definition. But for purposes of analyzing and interpreting the effects of mass media it does not appear desirable to limit the coverage of studies to those which have been done on extremely large audiences What does appear critical is that the results bear on methods which could be utilized with mass audiences. Accordingly, we shall follow Klapper (1949) in including researches done with impersonal transmission media regardless of the size of audience. Studies done with radio, movies, books, newspapers, and magazines are included

*The author wishes to acknowledge the helpful criticism and suggestions of Leonard W. Doob, Fred D. Sheffield, Irving L. Janis and Edmund H. Volkart. He also wishes to thank Gerald Wiener for his generous assistance in procuring books and journals from the various libraries and Ruth Hays for her careful editing of the next-to-final draft of the manuscript.

by this definition, but those involving personal address, the drama, and other face-to-face communications are excluded. It must be emphasized, however, that principles may often be uncovered in the latter situations which will enable us to understand better the type of communication which is involved with mass media. Studies of psychotherapy, for example, may help illuminate general problems of communication. But because they are complicated by methodological difficulties of controlling the interaction effects between communicator and communicatee, they cannot be directly generalized to mass media problems.

The emphasis in the present review will be on the analysis of the "effects" of communication. This results in the omission of discussion of content analyses of the various media, methods of control of communication, the economic and social characteristics of major communicators, and similar topics which must be included in a complete analysis of the communication process. A second emphasis is on empirical quantitative investigations. This involves the exclusion of a large number of brilliant essays by communication experts suggesting hypotheses not backed by research results. References to some of these other phases of communication will be found in the excellent bibliography of Smith, Lasswell and Casey, *Propaganda, Communication, and Public Opinion* (1946), and in the supplementary bibliography by Fearing and Rogge (1951).

In addition to the inevitable overlap between the several sections of the chapter, there will be some overlap between the present discussion and other chapters in these volumes. This is a reflection of the fact that the variables influencing the effectiveness of communication represent almost the entire range of problems studied by social psychologists.

Survey of General Studies

Before proceeding to a discussion of the specific factors influencing the impact of communications, a brief review of some of the major studies of the over-all effects of the principal mass media will be presented. These studies, primarily done within the last two decades, indicate some of the general effects on behavior produced by reading, movies, and radio. The relatively few studies done on the newest medium — television — will also be briefly reported.

EFFECTS OF BOOKS, MAGAZINES, AND NEWSPAPERS

What Reading Does to People, by Waples, Berelson, and Bradshaw (1940), summarizes the major studies concerning the effects of printed media. It is disappointing to find how few solid quantitative data are available here. But there are such formidable difficulties in the way of accurate analyses of the effects of reading books and newspapers — created by problems of evaluating exposure over the long period of time during which effects are produced and of determining the interaction between the effects of reading and other media — that one must be patient and not expect quick research answers.

Waples, Berelson, and Bradshaw have provided a very useful analysis of the types of effects which reading may produce. They distinguish five broad categories of effects: (1) *Instrumental.* These are primarily concerned with the utilization of information in print for a variety of the individual's practical and personal problems. (2) *Self-esteem or prestige.* Articles praising the group to which the reader belongs are avidly read for this reason. Sometimes the reading results in the mitigation of guilt and inferiority feelings, and at other times it invites identification with those who have achieved goals toward which the individual is striving. (3) *Reinforcement.* Support is sought for a position already taken on controversial issues. Conversions are rare and are more extreme responses to controversial reading. (4) *Enriched aesthetic experience.* (5) *Respite.* This is a transient type of response to reading which is characterized by such terms as "forgetting worries," "having a good laugh," and "killing time." The authors also present a number of interesting suggestions for research in this little-investigated area.

The five principal classes of print upon which research has been conducted involve (1) books, (2) newspapers, (3) magazines, (4) comic books, and (5) leaflets.

Books. We are all aware of the profound effects which certain books have had upon society; this may particularly be observed in the case of such books as the *Bible, Uncle Tom's Cabin,* and *Das Kapital.* The task of evaluating these effects is largely in the realm of the social historian. An excellent example of this type of analysis is found in *Books that Changed Our Minds,* edited by Malcolm Cowley (1939). A summary of the historical studies, with ap-

propriate references, is provided by Waples, *et al.*, as follows:

> Reinforcement of their own function and position in society was a result of the reading done by the bourgeoisie in Elizabethan England. The influence of London was extended throughout Britain with the growth of a reading public in the provinces in the late eighteenth century. The radical ideas of the French Revolution were brought to the attention of the working classes through popular pamphlets, and opportunities for such readings are supposed to have stimulated an interest in reading among them. The specific titles read by the Victorians reinforced many of the political, moral, and religious attitudes of the time.
>
> The literary culture and literary production of early colonists in the United States are reflected in and explained by their reading. Propaganda in early American fiction, an outgrowth of the propaganda pamphlets of the Revolutionary War, was directed at various social reforms. The extension of the American reading public in the middle nineteenth century, documented in both general histories and specialized studies, is attributed to the democratization of education and the introduction of cheap and inviting mass publications. (pp. 105f)

Newspapers The effects of newspapers have also been studied from a historical standpoint by a number of writers (cf., e.g., Bent's *Newspaper Crusades,* 1939). A frequent concern is the effect of newspapers on voting. One of the earliest attempts to secure an assessment of the influence of the press on political behavior was made by Lundberg (1926). He interviewed a random sample of 940 residents of Seattle concerning their views on four public questions which had been given prominent press discussion during the preceding eight months. In a different connection each individual interviewed was asked what newspaper he read most frequently. Only a very slight relationship was found between the stand taken on each issue by the newspaper and the opinion of the reader of that newspaper. The slight relationship could readily be explained by selective factors working in the reverse direction; i.e., some readers selected papers with whose editorial position they agreed rather than that the editorials influenced their position Lundberg concluded from the data he assembled that: "A modern commercial newspaper has little direct influence on the opinions of its readers on public questions. It probably seeks to discover and reflect that opinion rather than to make it." . . . "The stand of a newspaper on public questions is a negligible factor in the reader's estimation in selecting his newspaper" (pp. 712f.).

More recently, Mott (1944) has made an extensive analysis of the position of newspapers in presidential elections from 1792 to 1940. Wide discrepancies between newspaper support and popular voting were frequently found. Mott's conclusion is that "there seems to be no correlation, positive or negative, between the support of a majority of newspapers during a campaign and success at the polls" (p 356).

While there may be no gross correlation between the position of the newspapers and voting in these studies, it appears to the reviewer that the conclusion that newspapers have no effect on opinion is clearly unwarranted. First of all, the studies are set up on the expectation of the effects being so pronounced that they will show up in the gross figures. From what is known about the mass media we should expect the effects to be of a magnitude which would require more careful and detailed analysis to test the relationship. In the second place, the election issues which have been studied are typically major ones, concerning which the public is usually moderately well informed It is possible that on minor issues and local candidates the effect of the newspaper is considerably greater. Finally, editorials and news stories within the same newspaper often do not agree and hence there may be cancellation of effects. Separate analyses of the influence of editorials, news reports, and syndicated columnists would be most interesting.

The impact of the newspaper on behavior is a major concern of Lazarsfeld, Berelson, and Gaudet (1944). Much of their discussion and analysis is devoted to the problem of who reads the material in the newspapers dealing with the election issues. Their most general finding is that newspaper reading is done by those most interested in the campaign, and these are people who have already made up their minds long before the election. ". . . People with most interest were most likely to make their vote decision early and stick to it throughout the campaign. What we now find is that the people who did most of the reading about and listening to the campaign were the most impervious to any ideas which might have led them to change their vote. Insofar as campaign propaganda was intended to change votes, it was most likely to reach the people least susceptible to such changes" (p. 125). No definitive data are presented of the effects on individuals exposed and not exposed to the newspaper, but interviews did show that at least two-thirds of the voters mentioned that the newspaper was a source from which they obtained much information leading to their voting decision.

While the number of researches in naturalistic settings concerning the effects of reading have been few, there are a number of studies in which the reading of material has been controlled by the experimenter and the effects determined on information and opinion. Swanson (1951) presents a preliminary report of research carried out in this manner. A sample of 209 Minneapolis residents was interviewed on four successive occasions. On the first interview demographic and biographical data were secured. During the second interview a "before" test of information and attitude was administered, together with a five-item disguised intelligence test. During the third interview the respondent was asked to read several sections from the newspaper. "After" tests of the material read on the third interview were secured on the fourth interview. On the basis of the results obtained to date Swanson advances a number of hypotheses as to factors influencing the learning and retention of items concerning government contained in the daily press. The data indicate that there is considerable consistency, over a period of time, in an individual's habits of reading, and that on the basis of verbal ratings of interest one can effectively predict patterns of information acquisition. Those of his results bearing on the assimilation of information by men as compared with women and by brighter as compared with less bright members of the audience will be discussed below in connection with individual differences.

A frequently cited early study of the effect of reading on attitude was conducted by Annis and Meier (1934). Stories were "planted" in the university daily concerning a little-known Australian prime minister. To ensure exposure, the planted articles were included with other material read by the students during class sessions. Some of the students were exposed to material favorable to the prime minister, Mr. Hughes, while others were given statements which were uncomplimentary to him. The material read had considerable potency in influencing the attitudes of the students. Ninety-eight percent of those who read the favorable editorials were biased in the favorable direction and 86 percent of those who read the unfavorable editorials were biased against Mr. Hughes.

Another study using newspapers as the stimulus material is by Britt and Menefee (1939). Reports of the Dies Committee were read in newspaper form by students. Attitudes toward various individuals cited in the reports were strongly influenced by the reading.

Magazines. While there have been numerous surveys of who reads which magazines, the effects produced on those who do read them have not been extensively studied. Investigations of the effects of magazine advertising on sales are numerous but seldom made available publicly. It is doubtful that there are many distinctive effects associated with magazines which are not also characteristic of books and newspapers. One difference noted by Lazarsfeld, Berelson, and Gaudet (1944) is that magazines may be quite effective in reaching specialized audiences. Thus small specialized magazines may have considerable influence. It was found that the *Farm Journal* was mentioned as a concrete influence upon changes in vote intention as frequently as *Collier's*, despite the considerable discrepancy in circulation, and the Townsend publication was referred to as frequently as *Life* or the *Saturday Evening Post*.

Comic books A new influence in the American pattern of reading is that of the comic books, which have skyrocketed in circulation. Seldes (1950) states that the number of copies printed is 700 million per year. They have been widely decried as injurious to morals and responsible for the lowering of tastes. But little research on their effects is available, and the results reported are conflicting. Wertham (1948) refers to extensive "clinical studies" carried out by himself and associates which indicate that "comic books represent systematic poisoning of the well of childhood spontaneity" (p. 29) and set the pattern for later aggressive crimes. Wolf and Fiske (1949), on the other hand, report that the child finds in animal comics "subjects for his early projective needs, and later, in invincible heroes, he finds subjects for ego-inflation" and from comic classics material to "supplement the facts and insights he gains from more formal reading of history and current events and from experiences with real people" (p. 20). Objective research in this area is greatly needed.

Leaflets. In a number of investigations the effects of leaflets have been evaluated. The study by Hartmann (1936) on the use of political leaflets to influence voting is discussed elsewhere in this chapter. Leaflets have been extensively used in psychological warfare and there is keen interest in their effectiveness for this purpose. The problem of determining their impact in this situation is a difficult one methodologically. The kinds of data which may be secured and some of their implications are discussed by Herz (1949). Evidence concerning effectiveness was based on such criteria as the number of leaflets found on prisoners, the recall

of the content by the prisoners, comments on allied leaflets by the enemy, etc. Simple ideas were judged to be much more effective than more complicated ideological discussions. Additional work on leaflets with better experimental procedures is currently being done by the military services but is still in the classified category.

A number of other studies of the effects of reading have been done with specially prepared material read by the subjects, usually with attitude scales for the measurement of effect. Some of these are cited elsewhere in this chapter. They include the investigations of Bateman and Remmers (1941), Bird (1927), Cherrington and Miller (1933), Hartmann (1936), Hovland and Weiss (1951), Knower (1936), Sims (1938), and Wilke (1934).

MOTION PICTURES

From the standpoint of effects, the motion picture has probably been more extensively studied than any other medium This is partly because a movie is an expensive and permanent thing (as Lazarsfeld, 1948, suggests) but also because it is believed to be a particularly potent medium, utilizing both sight and sound. Also the conditions for research on its effects are a little easier to arrange because the audience is ordinarily physically present in a public place, whereas with newspapers, books, radio, and television the audience is scattered over a wide area, and it is a major task to identify those who become exposed and those who do not.

Movies, like the other media, may have a long-lasting effect on social behavior which can only be assessed by the social historian. Thus the effects of *Birth of a Nation* can be evaluated only superficially by short-term measurement. But the difficulties of long-term evaluation are very grave, and the majority of motion pictures are designed in terms of their more immediate effects Most of them are produced for entertainment, and are considered effective if they have good box office sales. This review is not concerned with these. Our interest is primarily in those motion pictures designed to provide knowledge or to change opinions, beliefs, and overt behavior. Pictures of this nature are many fewer in number and have received much less attention than the "popular" variety, but they are sufficiently different in objective to justify questioning the common assumption of movie producers that the techniques which have been time-tested for entertainment purposes will prove equally effective for providing information and modifying opinions.

There is an extensive literature on the utilization of films for straight instruction. This field is now so large and rapidly growing that it will be impossible to review it in the present chapter. Brief mention of the early studies must suffice. A more comprehensive treatment will be found in the recent bibliography by Hoban and van Ormer (1951).

One of the pioneer studies of the impact of motion pictures on both attitudes and overt behavior was that of Lashley and Watson (1922). They were asked by the United States Interdepartmental Social Hygiene Board to investigate the informational and educative effect upon the public of a film used in various campaigns for the control, repression, and elimination of venereal diseases. The film studied, *Fit to Win*, used a dramatic treatment to depict the consequences of venereal disease and of continence on World War I soldiers. Approximately 5000 individuals, made up of business groups, literary clubs, employee groups, soldiers, sailors, and youth groups, were shown the picture. The film was quite effective in conveying information about venereal disease. Questionnaire responses indicated a temporary increase in fear of venereal disease. But the evidence revealed no decrease in exposure to venereal disease afterwards.

During the decade from 1920 to 1930 there was intense activity in research on the utilization of the film as a medium of instruction, and during this period studies by Freeman (1924), Wood and Freeman (1929), Knowlton and Tilton (1929), and others were reported. These researches greatly increased our understanding of the scope and limitations of the movie medium.

Studies of considerable importance concerning the effects of films on opinions, attitudes, and behavior were done during the early thirties under the sponsorship of the Motion Picture Research Council, with financing from the Payne Fund. Perhaps the best known is that of Peterson and Thurstone (1933) on the effects of films (silent) on attitudes of school age children. Attitude scales were administered before and after the presentation of a variety of movies dealing with crime, war, and foreign groups. Sizable changes were produced which lasted over a considerable period of time. Table 1 presents some of the results obtained by these investigators.

Another frequently cited book in the Payne Fund series is that by Blumer and Hauser (1933) devoted to an analysis of the effects of motion pictures on delinquency. They employed detailed interviews and diaries to ascertain whether the types of crimes and their frequency were influenced by motion picture attendance. They conclude:

TABLE 1

EFFECTS OF MOTION PICTURES ON ATTITUDES
(from Peterson and Thurstone, 1933)

Film	*Attitude Scale*	*N*	*Mean Score Before*	*Mean Score After*	*Diff/P F. diff.*
"Four Sons"	Germans	130	5 66	5.28	5.37
"Sons of the Gods"	Chinese	182	6 72	5 50	17 5
"All Quiet on the Western Front"	War	214	4 33	3.65	14 98
"Birth of a Nation"	Negro	434	7 41	5 93	25 5

> Several important indirect influences disposing or leading persons to delinquency or crime are discernible in the experience of male offenders Through the display of crime techniques and criminal patterns of behavior, by arousing desires for easy money and luxury, and by suggesting questionable methods for their achievement, by inducing a spirit of bravado, toughness, and adventurousness, by arousing intense sexual desires, and by invoking daydreaming of criminal roles, motion pictures may create attitudes and furnish techniques conducive, quite unwittingly, to delinquent or criminal behavior.
>
> One may detect in the case of delinquent girls and young women influences similar to those spoken of in the case of young men. Motion pictures may play a major or minor role in female delinquency and crime by arousing sexual passion; by instilling the desire to live a gay, wild, fast life, by suggesting to some girls questionable methods of easily attaining them, by the display of modes of beautification and love's techniques, by the depiction of various forms of crime readily imitated by girls and young women; and by competing with home and school for an important place in the life of the girls. (pp 198-199)

Another approach to the problem is represented by the investigation of Shuttleworth and May (1933). They compared the attitudes and conduct of grade school students who attended the movies two or more times a week with an equated group who attended once a month or less. They report: "No significant differences were found in the conduct tests of persistence, self-control, and honesty in out-of-school situations, nor in measures of moral knowledge and social attitudes on a wide variety of topics most of which were unrelated to the movies, nor on a great many types of attitudes which are definitely related to the movies" (p. 84). These data suggest that the picture presented by Blumer and Hauser may be somewhat exaggerated The wide divergence in the estimate of effects derived from the two investigations is pitilessly attacked by Adler (1937). This is, of course, an area with tremendous methodological difficulties. Controlling exposure to rule out self-selection effects is difficult enough, but the evaluation of cumulative effects of a number of movies over a considerable period of time is also a formidable problem. As a consequence, evaluations of the effects of films on crime have been done characteristically with less rigorous methods, and serious loopholes exist in the interpretation of the results.

Other studies in the Payne series are those of Holaday and Stoddard (1933) on the acquisition of knowledge, and of Blumer (1933) on general conduct. There is a good summary of the series by Charters (1933).

Considerable use was made of motion pictures by the military services during World War II not only for training in skills but also for "orientation" and "indoctrination." A report of some of the experimental studies carried out to determine the effectiveness with which films modified attitudes was presented by Hovland, Lumsdaine, and Sheffield (1949). They summarize their results on the *Why We Fight* films as follows

> The *Why We Fight* films had marked effects on the men's knowledge of factual material concerning the events leading up to the war . . . Highly effective presentation methods are possible with this type of film.
>
> The films also had some marked effects on opinions where the films specifically covered the factors involved in the particular interpretation. . . Such opinion changes were, however, less frequent and in general less marked than changes in factual knowledge.
>
> The films had only a very few effects on opinion items of a more general nature . . . which were considered the criteria for determining the effectiveness of the films in achieving their orientation objectives.
>
> The films had no effects on the items prepared for the purpose of measuring effects on the men's

motivation to serve as soldiers, which was considered the ultimate objective of the orientation program. (pp. 64f.)

A number of hypotheses are discussed by the authors as to factors limiting the effectiveness of films for indoctrination purposes. Analyses are made of the effects of films on individuals of differing intellectual ability, and with varying interpretations of the real purposes behind the showing of the films. In some respects the conditions of utilization of films for civilian purposes may be different from those involved in army usage. But the situation within the army was ideal for this particular type of investigation because the pictures could be shown under conditions which were exactly those involved in nonexperimental utilization and the evaluation could therefore be carried out with a minimum of knowledge on the part of the subjects that any experimentation was involved.

There have been a number of very useful studies of individual films. An early investigation by Rosenthal (1934) indicated that a single 40-minute film on radicalism changed socio-economic attitudes closely related to its content but had little effect on other related items not specifically covered. A recent study by Cooper and Dinerman (1951) is of considerable interest because it is concerned with the possible effects of motion pictures on prejudice. Both questionnaire evaluation and individual and group interviews were employed. The authors report that the film *Don't Be a Sucker,* which shows that prejudice is a device manipulated by agitators for their own gain, was successful in directing specific messages to specific target groups. But there were a number of "boomerang effects," in which changes were produced opposite to those intended. They also found that messages stated in a generalized form are not likely to be accepted by any significant portion of an audience, and that messages which are not explicitly stated are likely to be entirely lost upon the less intelligent members of the audience. The latter point receives support from a recent experimental study by Hovland and Mandell (1952a) which showed that with complex material an explicit drawing of the conclusion is more effective than leaving it to the audience to derive.

RADIO

Radio as a medium of mass communication has been studied quite extensively. The progress in this field is attributable in good measure to the establishment of an Office of Radio Research, first at Princeton and then at Columbia, financed by the Rockefeller Foundation. Nearly half of the citations in this section represent studies carried out under these auspices.

Among the very early studies of the effectiveness of radio programs in modifying attitudes was one conducted by E. S. Robinson (1932). A series of four programs during successive weeks was presented on the topic "Unemployment. What the Voter Should Know." An experimental group of 419 listened to the programs, while a control group of 45 did not listen. Tests were administered before and after the series. The first effect of the programs noted was an increase of about 16 percent in the number of solutions for unemployment suggested by the exposed group. The new suggestions were heavily concentrated in the categories discussed in the programs An interesting incidental finding was the tendency for the listeners to accept a large number of ideas presented, even though some of the ideas were clearly inconsistent with others.

Another early investigation of the effects of radio was that of Cantril and Allport (1935). In addition to making comparisons between media (a topic to be discussed later), they performed a series of experiments on "effective conditions for broadcasting," investigating the effects of length of sentence, length of program, value of repetition, and so on. For that period (1935), this book stands as a very good pattern of research and interpretation. Later studies have, of course, modified and extended its conclusions.

A major utilizer of radio, largely for information purposes, has been the government. The effects of various radio programs directed at farmers have been studied by W. S. Robinson (1941) and by Umberger (1932). Umberger interviewed 532 farm families to determine their radio listening patterns and the extent to which they reported changes in their farming practices attributable to various sources of influence. His survey indicated that radio was responsible for 5 9 percent of the changes reported and that it ranked above circular letters, exhibits, posters, and several other types of influence. Considering the fact that radio reaches families less accessible to other Department of Agriculture informational services, the author considered it highly effective. Robinson is much less impressed with the importance of radio in changing opinions and practices. Among his rural listeners he found relatively few changes in opinion brought about by radio; in nearly every case the listeners reported turning off the radio when a point of view opposed to their own was presented. A bibliography of

other studies of the influence of radio on farmer groups is presented by the author.

An interesting study of the impact of radio was reported by Cantril (1940) on the panic reactions of listeners to the Orson Welles broadcast of the *War of the Worlds*. Detailed interviews of 135 persons were conducted, primarily among individuals who were known to have been upset by the broadcast. The varieties of reaction of different listeners are described The authors stress the importance of radio in these terms.

> The fact that this panic was created as a result of a radio broadcast is today no mere circumstance . . . Radio has inherently the characteristics of contemporaneousness, availability, personal appeal, and ubiquity Hence, when we analyze this panic, we are able to deal with the most modern type of social group — the radio audience . . . [which] consists essentially of thousands of small, congregate groups united in time and experiencing a common stimulus — altogether making possible the largest grouping of people ever known. (p x)

Studies of the utilization of radio for changing attitudes and opinions as part of a propaganda program are reported in Childs and Whitton (1942). Although little controlled experimentation is reported, there is a wealth of case material on the effects of the short wave broadcasts by both Axis and Allied sources. A particularly stimulating chapter is that of Edrita Fried on *Techniques of Persuasion*.

A number of detailed studies of individual radio programs have been reported. Particularly interesting is the series by Wilson (1948a), who obtained experimental measures of the effectiveness of documentary program broadcasts in influencing attitude. One of the programs was an hour-long broadcast on problems of juvenile delinquency, entitled *The Eagle's Brood* This program stressed the underlying causes of juvenile delinquency and the present inadequate means of dealing with the problem, and presented an action plan at the community level to cope with the situation. Before the program 42 percent of the panel considered our present system of dealing with delinquency "poor" or "very poor." This figure jumped to 66 percent after the broadcast. The effectiveness of individual points made during the broadcast is reported. (The interpretation of some of these is open to question. For example, the item judged to have been most effectively influenced, "Most juvenile delinquents are just naturally bad," is given an "Effectiveness Ratio" of 67 percent, but the data reveal that this is derived from the fact that only three percent of the audience had this opinion before the broadcast and one percent had it afterwards. No account is taken of the unreliability of such small changes)

In the Wilson report there is a good analysis of one of the programs which failed to reach its objective. *The Empty Noose* dramatized the crimes against humanity which brought the leading Nazis to the gallows at Nuremberg, and attempted to show the threat inherent in certain home-grown types of Fascism.

> Research findings showed that failure to provide a broad enough base for listener identification severely limited the impact of the broadcast. Listeners of the Jewish faith and strong liberals were terrifically moved by it, others were either antagonistic or lukewarm in their interest and approval. The latter groups tended to regard the problem of fascism as mainly of concern to minorities. (p 25)

In the case of radio there has been very extensive study of the immediate reactions of the audience to programs. The Columbia Broadcasting System, over a period of years, has studied the reactions of small panels of listeners to a large number of its programs, using push-button and polygraph recording, with subsequent interviews. The methods used, described by Hollonquist and Suchman (1944), help to locate points of low interest and permit modification of the programs to improve dull spots The recording of likes and dislikes often brings out points which are unclear to the audience (in the case of documentaries and lectures), and points which are otherwise ineffective

Another type of approach is the detailed interviewing of individuals who do and who do not listen to particular programs This method is best exemplified by Merton's (1946) analysis of the Kate Smith war bond radio program. Excellent case material is provided which is suggestive of important predispositions of the audience and of the manner in which appeals relate to these predispositions in bringing about action. The use of liberal quotations from the respondents adds enormously to the interest of the book.

The effects of radio listening on responses to other media have been examined by Lazarsfeld (1940) in *Radio and the Printed Page*. Considerable evidence is presented that radio listening is not necessarily in competition with book, magazine, and newspaper reading, but may be complementary. In a substantial number of instances, the stimulation for reading books and articles was derived from listening to a program over the radio. Radio and reading also interact in influencing voting behavior, according to

Lazarsfeld, Berelson, and Gaudet (1944). People who listened to radio discussions of the campaign issues tended to read political news also, and those who were not exposed to one generally were not exposed to the other. When asked which medium helped them to make up their minds about voting, 68 percent of the respondents mentioned radio and 66 percent mentioned the newspaper. An interesting finding, but one which is highly specific and not likely to be generalizable, was that the individuals who changed their voting intention from Republican to Democratic were more likely to attribute the change to radio than to newspapers, while those who shifted to the Republican position were more likely to attribute the change to the newspapers This is thought to be attributable to the fact that Roosevelt was a much more effective radio personality than Willkie, while the newspapers were solidly Republican

A number of other studies which are discussed elsewhere in this chapter had as an incidental purpose the analysis of the effect of radio on opinions and behavior. These included investigations by Dietrich (1946), Gaskill (1933), Heron and Ziebarth (1946), and Wilke (1934).

TELEVISION

Television is, of course, the wonder child of the mass media. Its rise has been so rapid and dramatic that systematic research on it is far behind that of the other media. As short a time as five years ago Wilson (1948b) complained that "we have difficulty in locating television set owners" [in New York City!]. Today there are over three million television sets there.

The possibilities of television for instruction are enormous, and there are numerous studies showing how it can be used to transmit information A good review of the research on educational utilization of television will be found in Finn (1953). The military services are beginning to explore the potentiality of the new medium for their instructional programs, and several recent research reports have appeared under the auspices of the Navy's Special Devices Center [cf., e.g., Rock, Duva, and Murray (not dated)]. As an instructional medium under classroom conditions it is doubtful that there will be any major differences between it and motion pictures. Under naturalistic conditions interesting differences may be expected.

While doubtless research is in progress regarding the effects of television on beliefs, opinions, and attitudes, little of this work has been reported to date. Illustrative of the type of investigations being made is one by Wiebe (1952a), concerned with public reactions to the televised broadcast of the hearings on crime and corruption in New York City. Since one of the objectives of televising these hearings was to arouse public concern and reduce apathy, Wiebe asked the sample he interviewed after the hearings what their reactions were. A high percentage indicated an aroused interest and concern, but few of these reported taking any action calculated to improve the conditions described. "The phenomenal impact of the Hearings dwindled to rather minor productivity insofar as it was mirrored in the reported behavior of our respondents and in their own opinions of the significance of what they did" (p. 185).

One question that is being asked by television researchers is. How does television compare in effectiveness with radio in producing sales? Several preliminary investigations have been reported indicating the superiority of television, and the flood of advertising dollars into this medium shows that the advertisers are convinced of television's effectiveness by their own confidential data.

Another question posed for research on television is the extent to which this new medium alters the pattern of life of the typical family. One of the early studies on the effect of television on leisure time activity was by Coffin (1948). He reported a decrease in attendance at movies and sports events Radio listening had declined by 68 percent during evening hours, and reading had dropped off some 18 percent. Substantially similar results were reported by McDonagh (1950). The latter investigator also noted decreases in pleasure driving, visiting, and conversation

Swanson and Jones (1951) report data that closely parallel those just mentioned. Their sample went to fewer movies and said they spent less time listening to the radio. Television appears to have interfered less with reading of newspapers and magazines Television viewers appeared to be less well informed on current events than were nonviewers, but it is difficult to assign the appropriate cause.

The decreased attendance at sports does not necessarily indicate a decreased interest in sports. A high percentage of the television owners studied reported that they had an increased common family interest in sports, according to Riley, Cantwell, and Ruttiger (1949), who also found that with children TV is not a substitute for other media, but rather an added activity. This has also been reported by Maccoby (1951). She found that children increased the total amount of time they spent on mass media.

The results of investigations in England are substantially the same as those reported in the United States. Silvey (1950) studied a random sample of 1000 television households which was selected and compared with a matched control group. A decrease in radio listening and visiting away from home as a result of watching television was less than that reported in the studies in this country. It is to be expected that some of these effects of television will be confined to its period of novelty, but others may continue for a long time.

Major Factors Influencing Effects

The preceding researches have been concerned primarily with the over-all effects of the various mass media. The studies which will be discussed in the present section have concentrated upon particular aspects of communications in an attempt to analyze major determinants of effect. These factors can all be subsumed under the conventional descriptive formula of "*who* says *what* in which *channel* to *whom* with what *effect*" (Smith, Lasswell, and Casey, 1946). Accordingly, our treatment will be concerned with the analysis of the communicator, the communication, the medium, the audience, and the effect.

THE COMMUNICATOR

Who says something is usually as important as *what* is said in the determination of the impact of a communication. Surprisingly, however, the influence of this factor on the effectiveness of the mass media has not been extensively investigated. There are a large number of studies of communicators, but the emphasis in these analyses is usually on the characteristics of the communicators and their role in society rather than on their effects.

In the general analysis of social psychological factors, variations in the effectiveness of different communicators are usually subsumed under the rubric "prestige effects." But the studies are seldom done in a communication setting. The typical investigation consists of an examination of the changes in the subject's responses to statements when different labels are attached to them. A sample of studies of this type is an early one by Arnett, Davidson, and Lewis (1931). A series of statements of attitude and belief were presented to graduate student subjects, who were asked to indicate their own positions on each item. They were then told how a group of educators had marked each statement. Later, when they again filled out the questionnaires, their ratings had changed in the direction of those attributed to the educators. This technique has subsequently been used primarily to determine the relative prestige of various groups.

A study of communicator effects designed to simulate the conditions which obtain in mass communication situations was recently reported by Hovland and Weiss (1951). College students were given communications to read which were represented as excerpts from newspaper and magazine articles. Half of the communications were attributed to sources found from an earlier questionnaire to be considered highly trustworthy, and half were attributed to those considered untrustworthy. For example, an article on the feasibility of developing an atomic submarine was attributed to Robert Oppenheimer in half of the cases and in the other half to *Pravda*. Questionnaires were administered before and after the reading, with several key opinion items inconspicuously included. Tests of information and evaluations of the fairness and justifiability of the presentations were also obtained.

Marked differences in the initial evaluation of the fairness and justifiability of the presentations were obtained when identical articles were attributed to different authors. The initial position of the reader also affected his evaluation.

> Identical communications were regarded as being "justified" in their conclusions in 71.7 percent of the cases when presented by a high credibility source to subjects who initially held the same opinion as advocated by the communicator, but were considered "justified" in only 36.7 percent of the cases when presented by a low credibility source to subjects who initially held an opinion at variance with that advocated by the communicator. (p. 650)

Sizable differences were found in the immediate effects of the two types of communicators on opinions. In 23 percent of the cases, subjects changed their opinions in the direction advocated by the communicator when the high credibility source was used, but less than 7 percent changed when the low credibility source was used. The results for the individual topics are shown in Table 2. Changes in opinion over time are reported in a later section. The differences in opinion did not appear to be mediated by differences in attention or care in reading because substantially the

TABLE 2

NET CHANGES OF OPINION IN DIRECTION OF COMMUNICATION WITH "HIGH CREDIBILITY" AND "LOW CREDIBILITY" SOURCES*
(from Hovland and Weiss, 1952)

	Net percentage of cases in which subjects changed opinion in direction of communication			
Topic	*High credibility sources*		*Low credibility sources*	
Antihistamines	($N = 31$)	22.6%	($N = 30$)	13.3%
Atomic submarines	($N = 25$)	36.0	($N = 36$)	0.0
Steel shortage	($N = 35$)	22.9	($N = 26$)	−3.8
Future of movies	($N = 31$)	12.9	($N = 30$)	16.7
Average	($N = 122$)	23.0	($N = 122$)	6.6
Diff.		16.4%		
P_{diff}		<.01		

* Net changes = positive changes *minus* negative changes.

same amount of information was acquired whether the material was attributed to a high or a low credibility source.

Confirmation of these results was obtained in a later study by Kelman and Hovland (1953) with high school subjects. Students were invited to listen to a recording of an educational radio program. The "communicators" were three guest speakers assigned different roles. All took the same position on the topic, which was that extreme leniency should be employed in the treatment of juvenile delinquency. The three communicator versions, differing only in the introductory characterization of the guest speaker, may be labelled "positive," "negative," and "neutral." In the *positive* version the communicator was identified as a judge in a juvenile court — a highly trained, well-informed, experienced authority on criminology and delinquency; sincere, honest, and with the public interest at heart. In the *neutral* version, the speaker was identified as a member of the studio audience, chosen at random. No information about him beyond his name was given. In the negative version, the speaker was also presented as a man from the studio audience, but in the introductory interview it was revealed that he had been a delinquent as a youth and currently was involved in some shady transactions, being out on bail after an arrest on a dope-peddling charge. He showed low regard for the law and great disrespect for his parents. It was plainly evident that he was self-centered and that his leniency view was motivated by self-interest.

Audience reactions to the various speakers were obtained directly after the communication, and the results are summarized in Part A of Table 3. The "negative" source was judged as less fair and trustworthy than the "positive" source. Reaction to the "neutral" source was intermediate.

The opinion results closely parallel these reactions. In Part B of Table 3 it can be seen that the group hearing the communication from the "positive" source has opinions more in line with those advocated by the communicator than those hearing it from the "negative" source. (The higher scores indicate a more lenient position.) The generalization drawn by the authors of the above studies is that the characterization of the communicator as trustworthy or biased has relatively little effect on the learning of factual material but markedly influences the degree to which the communicator's conclusions and recommendations are accepted. They consider the extent of change in belief to be a joint effect of the learning of the content and the acceptance of the message communicated.

Surveys of audience reactions to the communicator may throw considerable light on the factors affecting degree of acceptance. In this category belongs Merton's (1946) interesting study of Kate Smith's bond-selling marathon. One of the principal themes of the book is the audience's perception of Kate Smith as a very sincere individual and the relevance of this factor in explaining her effectiveness. The respondents viewed the eighteen-hour marathon itself as validating this characteristic and the steady listeners were more convinced of the purity of Kate Smith's motives for conducting the campaign than were those who only listened

occasionally or did not listen at all. The author attributes this largely to the effects of successive broadcasting in building up a public image of Kate Smith. It is also possible, of course, that the chain of causation is in the opposite direction — that only those with the favorable image became steady listeners. The contrast between Kate Smith's sincerity and the usual pretenses, deceptions, and dissembling of daily experience is stressed. Informants appear to feel themselves the objects of manipulation:

> They see themselves as the target for ingenious methods of control, through advertising which cajoles, promises, terrorizes, through propagandas that, utilizing available techniques, guide the unwitting audience into opinions which may or may not coincide with the best interests of themselves or their affiliates, through cumulatively subtle methods of salesmanship which may simulate values common to both salesman and client for private and self-interested motives. (p. 142)

Further data concerning audience reaction to different types of communicators and the relation of these perceptions to the effect of the communication are furnished in a recent study by Hovland and Mandell (1952a) which had as its main purpose a comparison of the effects of conclusion-drawing by the communicator and audience. Recordings of a program on devaluation of currency were made on tape. In one version the communicator was introduced as being a prominent importer (who would have something to gain by devaluation), and in the other as an economist from a specified large

TABLE 3

AUDIENCE EVALUATIONS AND OPINION CHANGE WITH "POSITIVE," "NEUTRAL," AND "NEGATIVE" SOURCES DELIVERING THE SAME COMMUNICATION ON JUVENILE DELINQUENCY

(from Kelman and Hovland, 1953)

A. Audience Judgments concerning Expertness and Trustworthiness

	Nature of the source		
	Positive (N = 105*)	Neutral (N = 59*)	Negative (N = 100*)
Percent judging him to be highly qualified to speak on the topic of juvenile delinquency . . .	78%**	33%	9%
Percent judging him as giving a "completely fair" or "fair" presentation . . .	73%**	63%	29%
Percent saying they would trust his judgment "completely" or "some" . . .	87%**	66%	25%

* The number of subjects answering each question varies slightly. These are the smallest N's for any of the three judgments.

** Positive versus negative is significant at beyond the .001 level.

B. Immediate Effects of Communicators on Opinion Scores*

Group	N	Mean**
"Positive" source	97	46.7
"Neutral" source	56	45.7
"Negative" source	91	42.8

* A high score represents the position of leniency advocated in the communication.

** $t_{\text{pos-neg}} = 4.11$ $p = .001$

$t_{\text{pos-neutr}} = 0.79$ $p = .21$

$t_{\text{neutr-neg}} = 2.36$ $p = .01$

American university. Pronounced differences in the subject's evaluation of the adequacy and fairness of the presentation were obtained, as indicated in Part A of Table 4. But the net percentage of the subjects who changed their opinions in the direction advocated by the communicator was not very much greater with the "nonsuspicious" than with the "suspicious" communicator. *Thirty-seven* percent of the subjects who heard the version attributed to the impartial economist were influenced, while in the case of the suspicion-arousing communicator the percent changed was *twenty-five*. With somewhat over one hundred cases in each group, this difference is not significant (Part B of Table 4).

A related type of study has been done in the field of public speaking by Haiman (1949), employing the concept of the "ethos" of the speaker. Introducing a recorded speech concerning compulsory health insurance as delivered by the Surgeon General of the United

TABLE 4

AUDIENCE EVALUATIONS AND OPINION CHANGE WITH IDENTICAL COMMUNICATIONS PRESENTED BY "SUSPICIOUS" AND "NONSUSPICIOUS" COMMUNICATORS
(from Hovland and Mandell, 1952a)

A. Audience Judgments concerning Adequacy and Fairness of Communication

	"Nonsuspicious" communicator ($N = 113$)	"Suspicious" communicator ($N = 122$)
Percent of subjects believing communicator did "A very good job" in giving the facts	41 1	21.1
Difference	20.0	
p	$<.001$	
Percent of subjects saying communicator gave a "fair and honest" picture	52.7	36.7
Difference	16 0	
p	$<.01$	

B. Percent of Subjects Changing Opinion on "Devaluation" from Before to After Communication

	Direction of change*	Conclusion not drawn by communicator %		Conclusion drawn by communicator %	
"Nonsuspicious" communicator	Positive	30.9		53.4	
	No change	60.0		44.8	
	Negative	9.1		1.8	
	Net % changing		21.8 ($N = 55$)		51.6 ($N = 58$)
"Suspicious" communicator	Positive	30.5		49.2	
	No change	55.9		46.0	
	Negative	13.6		4.8	
	Net % changing		16.9 ($N = 59$)		44.4 ($N = 63$)
Combined ("suspicious" and "nonsuspicious" communicators)	Positive	30.7		51.2	
	No change	57.9		45.5	
	Negative	11.4		3.3	
	Net % changing		19.3 ($N = 144$)		47.9 ($N = 121$)
Mean Diff. =				28.6	
$p =$				.001	

*Positive is here defined as changing in direction of position advocated by communicator, negative as changing in direction opposite that advocated by communicator. Net % changing = percent changing in positive direction minus percent changing in negative direction.

States, a communist, or a college sophomore produced significantly different amounts of opinion change.

Two types of studies have been discussed: one in which characterizations of the communicator have been experimentally varied, and the other in which differences in the audience's perceptions of the communicator were analyzed through interview. It will be seen that these two types of research give distinctive but complementary information. The type of interview study typified by Merton's (1946) investigation is particularly useful in analyzing the factors to which the audience is reacting when a particular communicator is involved. It is well suited to the exploration of a genuine real-life communication where strong emotional factors may be involved. Experimental investigation, however, is necessary to determine whether the differences in audience evaluation of a communicator really affect the capacity of the communicator to modify belief, attitude, and overt behavior. The study by Hovland and Mandell emphasizes this point. although there were pronounced differences in evaluations of the trustworthiness of the communicator, there were no significant differences in the extent to which opinions were changed by the two types of communicator.

THE COMMUNICATION

How are the effects of mass media influenced by the character and content of the communication? In answering this question one must consider both the types of appeals employed and the arrangement of the elements sequentially.

Appeals. One way in which the nature of appeals is frequently discussed is in terms of the relative effectiveness of "emotional" *versus* "rational" appeals. Thus in the experiment of Hartmann (1936) two types of appeals were compared in terms of their efficacy in inducing voters to cast their ballot for the Socialist party. One type of leaflet employed a strong emotional appeal, stressing the implications of socialism for freedom from war, want, and fear, and its positive effects for home, comfort, and country. The other ("rational appeal") version employed a quiz game in which the arguments favoring socialism were stressed. In one set of voting districts every family was given the emotional leaflet, while in a second set the rational appeals leaflet was distributed. A third set of wards was retained as a control. The emotional appeal leaflet was most effective. Fifty percent more socialist votes were cast in these wards than in the previous election, while the increase was only thirty-five percent in the "rational appeal" wards. (The control wards showed an increase over the previous election of 24 percent.) (Figure 1.)

Superiority of emotional propaganda over
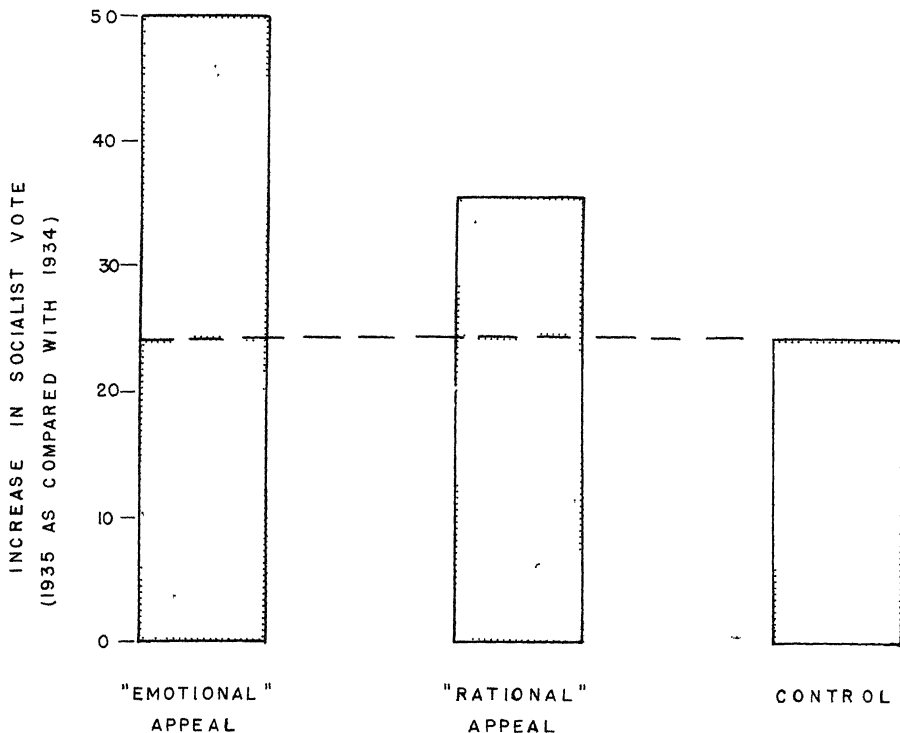
FIGURE 1.

logical argumentation was also obtained by Menefee and Granneberg (1940). The remaining studies have failed to find clear-cut superiority of one type of appeal over the other. In studies by Knower (1935, 1936) the two methods appeared to be of approximately equal effectiveness in influencing attitudes toward prohibition. But it was found that individuals favoring prohibition were more affected by logical argument, and those opposed by persuasive argument Dietrich (1946) reports that in the case of radio commentator programs there were no significant differences between a "conversational" and a "dynamic" delivery in shifting attitudes. Subjects tended to label the dynamic delivery as "propaganda" more frequently than the conversational delivery. No differences were found between "commentator" and "dramatic" radio transcription by Hovland, Lumsdaine, and Sheffield (1949) in changing the opinions of soldiers about the probable length of the war.

The lack of consistency in outcome suggests the need of further research on the conditions which affect the relative advantage of the two types of appeals. These two types of appeal are not, of course, truly alternative, since the effectiveness of emotional appeals may depend to a large extent on persuading individuals to consider rationally certain issues raised, and of course rational arguments depend for their effectiveness on some appeal to the individual's motives A study of individual differences, determining which members of an audience are most affected by the various types of appeals, would be particularly instructive. Certainly educational differences should appear, associated with emphasis during schooling on the "virtues" of the rational and the deprecation of the emotional. Personality and cultural differences are also to be expected.

Another research formulation in this area is that of "positive" as compared with "negative" appeals. The appeal in the former is oriented toward the attainment of some desirable outcome, while in the latter it is couched in terms of how to avoid some unpleasant outcome. In advertising there appears to be a general trend toward an increased use of negative appeals (Lucas and Britt, 1950), and this may be based on confidential data concerning its effectiveness. Lucas and Benson (1930) obtained sales records for extension courses, a test campaign, and a book promotion program. Sixteen of the comparisons favored the positive and twelve the negative appeals. Some of the products appeared to sell better with negative appeals and others better with positive ones, despite a lack of over-all difference in effectiveness. Again there is a need for further research to determine why one is more effective under particular conditions than the other.

In the experimental literature there is relatively little evidence concerning the use of various types of appeals in communication. A good share of our knowledge of this problem comes from commercial research done in connection with radio, newspaper, and magazine advertising. Most of this work is rather uncontrolled and is set up along empirical rather than theoretical lines. The types of results available in the advertising literature concerning appeals and methods of presentation will be found in some of the publications on the psychology of advertising Books by Burtt (1938) and Lucas and Britt (1950) are particularly complete in this area.

Extremely interesting data on the use of appeals in mass communication come from the Merton (1946) study of the Kate Smith campaign, referred to earlier A content analysis was made of the various types of appeals used, and then cross comparisons were made between the appeals and the comments of the individuals interviewed. For example, content analysis revealed that "sacrifice" was frequently used as a theme. From the comments the author infers that:

> . . . this triangulation of sacrifice, this three-cornered pressure — the boys' sacrifice, other listeners' sacrifice, Smith's sacrifice manifested in the marathon — developed in many listeners a strong sense of unworthiness and guilt. . . . Only by matching the sacrifices of the other three — converting the triangle into a square as it were — could tension be relieved.

This is then illustrated by the following case study:

> Then, after the purchase, there was strong evidence of catharsis. Duty had been done and guilt swept away. . . . "After I called up, I felt good, *I felt that I had done something real on the phone. I got it, and just to bring the boys home.*" (pp. 54f.)

It will be seen that this type of research, based largely on matching comments and appeals, has important methodological difficulties. The comments may or may not have any close relationship to the reasons for bond purchases. Such research is, however, very suggestive of hypotheses for more rigorous investigations where appeals of various types may be experimentally introduced and the changes in attitudes and behavior studied.

An example of an experimental attack on the problem of optimal utilization of appeals in mass communication is the study by Janis and Feshbach (1953). The effects of three different intensities of fear appeal were investigated in a communication on dental hygiene. A fifteen-minute talk was prepared in three versions which contained the same essential information about causes of dental disease and the same recommendations for proper care of teeth, but which differed in the amount of fear-arousing material Version I used a strong fear appeal, emphasizing the painful consequences of tooth decay and showing illustrative slides on diseased gums and other results of poor dental hygiene. Version II used a moderate appeal in which the dangers were presented in milder form. Version III used a minimal fear appeal in which more neutral material appeared. Both the verbal material and the accompanying slides varied in the degree to which they contained threats concerning the consequences of not conforming to the recommended course of action concerning oral hygiene.

The freshman class of a large high school was divided into four groups — three experimental groups (one for each of the appeals) and one control Evidence that the three appeals differed in the amount of emotional tension they aroused was obtained from questions asked of the audience concerning their worry about the condition of their own teeth. A clear progression appeared, with 74 percent of the "strong fear" group, 60 percent of the "moderate" group, and 50 percent of the "minimal" group reporting feeling "some worry" during the presentation.

The principal results of the experiment bear on the extent to which the recommendations were accepted and followed. The greatest change was obtained in the minimal fear-arousal condition (Table 5). This was in line with the authors' expectation that fear arousal, if intense, may lead to adverse effects, such as hostility toward the communicator. As a result the communication may not be accepted. Another way of checking the effects was employed by re-exposing the audience to a second communication, which discounted the recommendations of the first. Again the talk of minimal fear arousal was found to be most effective in that the audiences in the other groups were more inclined to accept the countercommunication which discounted the original talk.

Sequence of arguments. The impact of a communication is also influenced by the order in which the various points are presented.

One characteristic problem concerns the relative effectiveness of arguments presented toward the beginning or toward the end of the communication. This is frequently phrased as the effect of "climax" as compared with "anticlimax" order. In the former the strongest arguments are saved for the end, while in the latter the strongest arguments are used at the outset.

Several studies of the relative effectiveness of the two alternative arrangements have been

TABLE 5

EFFECT OF DIFFERENT DEGREES OF FEAR APPEAL ON CONFORMITY TO DENTAL HYGIENE RECOMMENDATIONS

(From Janis and Feshbach, 1953)

Type of change	*Strong* Fear appeal group ($N = 50$)	*Moderate* Fear appeal group ($N = 50$)	*Minimal* Fear appeal group ($N = 50$)	*Control* Group ($N = 50$)
Increased conformity	28%	44%	50%	22%
Decreased conformity	20%	22%	14%	22%
No change	52%	34%	36%	56%
	100%	100%	100%	100%
Net change in conformity	+8%	+22%	+36%	0%
$p_{diff.}$	.03 (Strong vs. Moderate)		.01 (Minimal vs. Control)	

made. One carried out by Sponberg (1946) used communications concerning the desirability of wartime marriages. Each communication was divided into three parts. "large" (eight minutes long and containing the line of argument rated as of greatest importance by speech judges); "medium" (five minutes of an argument of intermediate importance); and "small" (three minutes of the least important argument). These were presented to one group of 92 college students in "climax" order (with most important arguments last), and to another group of 93 students in the reverse ("anticlimax") order Opinion questionnaires dealing with the over-all issue and with each of the three supporting arguments were administered immediately before the communication and again immediately after, followed by a third administration from ten to thirteen days after the communication. While the shifts of opinion on the main proposition were not significant, opinion change on the "large" argument was clearly greater when it was presented at the beginning of the communication (in "anticlimax" order).

Another major study was made by Cromwell (1950). He presented recorded speeches to four groups of college students, totaling 441 subjects. The topic concerned the desirability of federal medical aid. Half of each communication was a speech containing strong arguments for the position advocated, the other half was a speech of the same length but weaker in argumentative content and organization. The characterization of the speeches as "strong" or "weak" was also checked in terms of the ratings of effectiveness assigned to them by trained judges One group of subjects listened to a "strong" affirmative speech followed by a "weak" affirmative speech Another group listened to the same speeches in the opposite order. Two other groups heard strong and weak speeches on the negative side of the question. Attitude scores were given before the speeches and after each of the two speeches.

The mean shift in audience attitude was significantly greater for speeches in the weak-strong (climax) order than in the opposite, anticlimax order. Only 27 percent of the auditors who heard the speeches presented in anticlimax order made a shift greater than one standard error, whereas 42 percent of the listeners who heard the speeches in climax order made a shift toward the side of the proposition advocated.

Sponberg's results support an anticlimax order, while those of Cromwell indicate the superiority of a climax sequence. There seem to be two major variations in the procedures of the two experiments that may have affected the outcomes. In Sponberg's study the differences in emphasis were confined to two portions of a single speech, while in the Cromwell study the difference was in the strength of two different speeches on the same topic. The other variation was that in the Sponberg study the difference in strength of argument was determined primarily on the basis of the amount of time devoted to it in the talk, while in the Cromwell research the speeches were of equal length but were designed to differ in convincingness.

It appears unlikely that one or the other order of presentation will turn out to be universally superior Research is therefore needed as to what factors are responsible for the differences in outcome. Hovland, Janis, and Kelley (1953), in analyzing this problem, discuss the role of attention, learning, and acceptance. In connection with *attention arousal* the hypothesis is suggested that the presentation of the major arguments at the outset (anticlimax order) will be most effective where the audience is initially little interested in the communication. Studies of *learning* in serial order are discussed, showing that learning difficulty is greatest in the middle portions and that both the beginning and the end are easier to learn than the items in the center. Various hypotheses are suggested as to how the structure of the communication may affect the *acceptance* of the communication. One hypothesis derived from learning theory is that the climax order will be more effective in regard to acceptance, when other factors are kept constant, because with the anticlimax order the failure to fulfill the expectations created by the initial portions may produce frustration and consequent extinction.

A second problem of sequence which also goes under the name "primacy-recency" is that involved when opposed sides of an issue are being presented. Does the side presented first have a better chance of influencing opinion than that presented second? This is of considerable importance in connection with debates, court trials, propaganda, and so on.

One of the first studies of this problem was by Lund (1925). Communications were presented first on one side of an issue and then on the other. The positions were suitably counterbalanced so that the relative effectiveness of the first presented could be compared with that of the second. His results indicated that the first presentation invariably changed opinions more than the second changed them back. Diametrically opposite results were obtained by Cromwell (1950), who found that

the last presented results were more effective in persuasion A recent study by Hovland and Mandell (1952b), which repeated the Lund procedure, found neither primacy nor recency consistently

Again the research task is to separate out some of the factors contributing to the differences in results obtained by various experiments The factors of attention, learning, and acceptance may all be involved The relative effect of primacy may be different when the audience is interested in the issue than when the initial communication must first arouse interest and then present the arguments. The presentation of both sides represents the standard reproductive interference design in classical verbal learning research. From the studies done in this area, we should expect that the time interval between the two presentations and between the initial presentation and the testing for opinion change would be critical elements Acceptance may depend on the evaluation of the communicator and the degree of commitment produced by answering the questionnaire items in a particular manner Both factors may have contributed to Lund's results. Since the experimenter was the regular instructor the class may have accepted the first communication as Lund's own position, but they may have been confused and mystified by the switch when the same instructor presented the second side. Also, questionnaires were administered after each communication, so that some commitment to the position taken after the first communication was involved [although the results of Hovland and Mandell (1952b) suggest that this is not a crucial factor]. Thus a great deal of further research is needed before the Lund phenomenon can be truly named, as Lund entitled it, "*The Law* of Primacy in Persuasion."

A final type of problem in the arrangement of arguments is involved when one is faced with the decision as to whether arguments on both sides of the question should be discussed, or whether the arguments should be confined to only one side. When one is successively exposed to first one side and then the other of a controversial subject, as in a debate, the typical result is that the individual is left at approximately his initial position. This comes out most clearly in the study by Sims (1938), where the same individuals were exposed to both sides of a communication on TVA Each side alone produced a significant effect, but in combination cancellation of effects was obtained. Substantially similar results were obtained by Schanck and Goodman (1939) using propaganda favoring or not favoring civil service. Related studies on the effects of debates and discussion groups are summarized in Brembeck and Howell (1952).

A quite different problem is raised when the same communicator takes into account both sides of an issue but is himself in favor of one side. Klapper (1949) has labelled this problem that of "partial impartiality," in reporting the study by Hovland, Lumsdaine, and Sheffield (1949). These investigators presented communications to two experimental groups of 214 soldiers each and to a control group of 197 soldiers on the question of an early end of the war with Japan following Germany's surrender. Beliefs concerning the issue were tested before the communication and immediately after the communication. One experimental group was given a fifteen-minute talk presenting only the arguments for thinking that the war with Japan would be a long one. The material presented contained much factual information stressing Japan's advantage and resources. The second experimental group was given a communication which contained an additional four minutes of information woven into the presentation stressing United States advantages and Japanese weaknesses.

To evaluate the effectiveness of the two programs, subjects were asked to estimate the probable length of the war with Japan after VE Day. The hypothesis studied was that those opposed to an issue would rehearse their own counterarguments during a one-sided presentation and would regard a one-sided presentation as biased. Their data, presented in Fig. 2, support the

NET PER CENT OF INDIVIDUALS CHANGING OPINION IN DIRECTION OF POSITION ADVOCATED BY COMMUNICATOR

A AMONG MEN INITIALLY OPPOSED TO COMMUNICATOR'S POSITION

PROGRAM I (ONE SIDE) 36%

PROGRAM II (BOTH SIDES) 48%

B AMONG MEN INITIALLY FAVORABLE TO COMMUNICATOR'S POSITION

PROGRAM I (ONE SIDE) 52%

PROGRAM II (BOTH SIDES) 23%
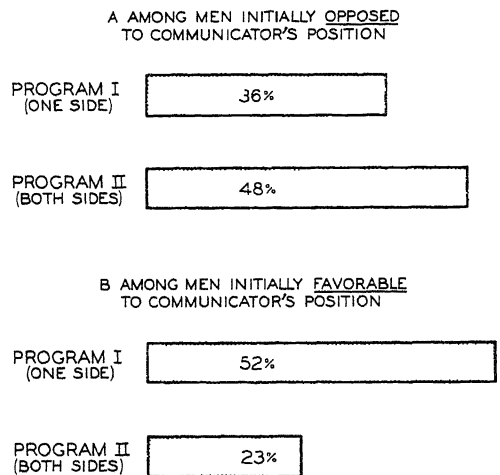
FIGURE 2.

hypothesis by showing that the "net effects" were different for the two ways of presenting the material, *depending on the initial stand of the listener*. The program giving both sides was more effective for men initially opposed, that is, for men who, contrary to the programs, expected a short war (less than two years). On the other hand, the program giving the one-sided picture was more effective for men initially favoring the stand taken, that is, for the men who agreed with the point of view of the programs that the war would take at least two years.

Another expectation was that the better educated men would be less affected by a conspicuously one-sided presentation and, conversely, would be more likely to accept the arguments of a presentation that appeared to take all factors into account in arriving at a conclusion. On the other hand, the consideration of both sides of an issue could weaken the immediate force of the argument for the less well educated insofar as they are less critical and more likely to be impressed by the strength of the one-sided argument without thinking of objections. The results, when analyzed according to educational level, showed that the program which presented both sides was more effective with better educated men and that the program which presented one side was more effective with less educated men.

When education and initial position were considered together, it was found that the communication giving both sides proved to be more effective among the better educated regardless of initial position, whereas the one-sided presentation was primarily effective with those who were already convinced among the less well educated group. From the results obtained it would be expected that the total effect of either kind of program on the group as a whole would depend both on the group's educational composition and on the initial division of opinion in the group. Thus, obtaining information about the educational level and initial position of an audience might be of considerable value in choosing the most effective type of presentation.

An extension of this type of investigation was carried out by Lumsdaine and Janis (1953). Here audiences were exposed to a communication contrary to the initial communication after having heard either both sides or only a single side. The results indicate that the two-sided presentation is particularly effective in "innoculating" the audience against the effects of subsequent countercommunication.

THE MEDIUM

In the literature of communications there are a considerable number of studies comparing one medium with another in terms of achieving some desired effect. Such comparisons present some very grave methodological problems. For one thing, the uses of two different media are often so distinctive that direct comparison is not meaningful. For example, determining whether radio or television is more effective in conveying to an audience the characteristic techniques of different sculptors would not be worthwhile, since it could be predicted in advance that television would be superior.

A second problem is the differential selection of audiences by different media. Comparisons of naturally self-selected audiences have one meaning, while comparisons between audiences which have been experimentally subjected to one or the other medium may have a different meaning Thus comparisons involving captive audiences which have been given one or the other medium may not sustain generalization to real life situations where a high degree of self-selection obtains.

The third difficulty is to obtain a sufficiently large sample of different communications using the same medium to permit valid generalization about a population of cases involving some particular medium. The bulk of the literature involves a comparison of say one radio presentation and one directly given speech. The obtained results may be attributable to unique characteristics of the particular comparison made.

One generalization derived from comparisons of media is that the oral presentation of material appears to be more effective than the printed presentation in changing opinion. The three major studies of this problem all appeared at about the same time, in 1934-36. Wilke (1934) compared the effects of oral, radio, and printed presentations on attitudes toward war, distribution of wealth, birth control, and God. A total of 341 college students were studied. One group heard the speech delivered in person, another listened to it over a closed radio circuit, while the third read a mimeographed version labeled as the text of a speech to university classes. Subjects served in the experimental group for one topic and the control group for another. All three methods had significant effects. The speech made in person produced the greatest changes and the printed pamphlet the least. Particularly in the case of radio, some individuals were changed in a direction opposite to that intended.

Comparisons of oral versus printed presentations of persuasive arguments were also made by Knower (1935, 1936). The topic studied was prohibition, two of the versions favoring it and the other two opposing it. Attitude scales were administered before and after the communications. Oral argument was found more effective in producing changes in opinion than printed argument.

The studies by Cantril and Allport (1935) represent another attack on the problem. In these investigations not only were there comparisons of the over-all effect of communications, but also extensive observations were made concerning the reactions of the audience during the presentations. In general, simpler materials were used, designed more for transmittal of information than for persuasion. From the comparison of directly transmitted speech as compared with radio presentation the authors conclude that "the radio situation is more solidly structured than the face-to-face situation, less easily analyzed and regarded less critically by the listener" (p. 139). The latter point is not consistent with the results of Wilke mentioned above From a comparison of listening to radio and reading carried out by Carver, Cantril and Allport draw the following conclusion: "If other conditions are kept constant, the mental functions of recognition, verbatim recall, and suggestibility seem more effectively aroused in listening; whereas critical attitudes and discriminative comprehension are favored by reading" (p. 159).

The differences found by Cantril and Allport between listening to a lecture directly and hearing it over a loudspeaker were found to be relatively slight. Studies by Ewbank (1932) and by Heron and Ziebarth (1946) have tended to support this result, although Gaskill (1933) found some superiority in broadcast lectures over direct hearing.

Contrasted with the laboratory investigations of the relative effectiveness of the printed page as compared with the radio are investigations which take account of the complex naturalistic setting of the alternative media. In *Radio and the Printed Page,* Lazarsfeld (1940) presents an extensive report of the types of interest satisfied by the two media, differences in their characteristics, and some data on their effectiveness. One of the striking findings is the interdependence of the two, in which one of the clear-cut effects of radio is the promotion of reading. In Lazarsfeld, Berelson, and Gaudet (1944) there is an extensive comparison of the extent to which individuals base their voting decision on one or the other medium. Both are judged about equally effective in having an influence, but radio is more often given as the factor which was *most decisive.* Results on this point are shown in Fig. 3.

Films have been frequently compared with other media for effectiveness. Much of the literature is in the area of teaching which we have arbitrarily excluded from the present review because of its extensiveness. Hoban and van Ormer (1951) report over twenty studies devoted entirely to the comparison of films with other methods of instruction in teaching various types of subject matter. The conclusion derived by these authors from the studies reported is that effective films are approximately equal to an instructor for the presentation of facts and the demonstration of concepts.

There are beginning to appear a few comparisons of television with other media. Those which appear in the trade publications are primarily concerned with the relative efficacy of television as compared with radio in producing sales. The results generally favor television. There has been one laboratory-type study of the comparative effectiveness of a radio and television transmission of the same program (Goldberg, 1950). The results indicate that television viewers were able to name the sponsor of the program and the products advertised more frequently than were those in the radio
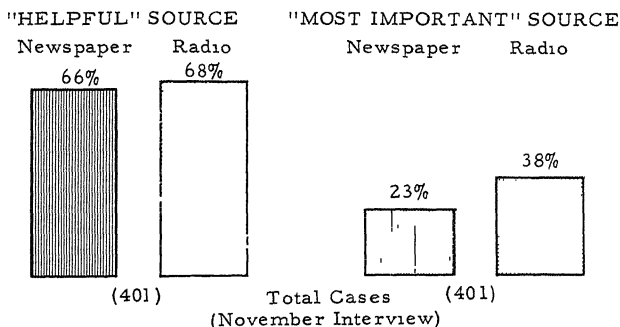
FIGURE 3.

group. They also remembered more details concerning the content of the program. Again we must await further research to determine whether the superiority of television is primarily attributable to its present novelty. In another study television was compared with a movie version of the same program in the training of officers and enlisted men. The two were found to be equally effective and about as effective as the typical method of face-to-face instruction [Rock, Duva and Murray (not dated)].

Factors responsible for differences in effectiveness of media. Comparisons between the various media, discussed in the preceding section, have not proved fruitful in providing important scientific generalizations. This is primarily attributable to the fact that there are a sizable number of differences between the different media and some of these may operate to increase and others to decrease the effects studied. At the same time, the studies have frequently been done under somewhat artificial conditions so that they have likewise not been too useful for practical application under naturalistic conditions. It would seem profitable for future research, therefore, to employ controlled variation of particular factors in which the media differ. Simultaneously research will have to be conducted to determine the realistic conditions under which the generalizations are to be applied. Some of the general factors which are involved in media comparisons will be briefly discussed in terms of their effects in (a) attracting and holding an audience, (b) providing information, (c) changing attitudes and opinion, and (d) inducing action along particular lines.

Attracting an audience. The first respect in which media may differ is in the kind of audience they attract and the degree to which they hold the attention of the audience attracted. The effects of communications are inextricably bound to these factors. Generalizations in this area will be concerned with which media attract which types of individuals. Research on this topic is represented by the work of Beville (1939) and Herzog (1944) on audiences for radio programs, Berelson (1949) on readership of books, Schramm and White (1949) on newspaper readership, Lazarsfeld and Wyant (1937) on magazines, and Handel (1950) on movies. Much information of this type is already available, and additional data, based on surveys of who are reached by various media, are in the hands of commercial agencies.

The second facet of the problem, having to do with the degree of attention aroused by the various media, is less fully investigated. It is alleged that television is particularly compelling and that individuals give it their undivided attention to a much greater extent than radio, but this is not too well documented and merely highlights the need for numerous comparative studies. One would suspect that the difference between the immediacy of an event transmitted via television and a subsequent movie version of it would be the type of factor to be investigated, but differences in conditions of viewing would also have to be taken into account.

Conveying information The second general area of studies would involve comparisons among the media in terms of their efficacy in transmitting knowledge and imparting skills. In this area gross comparisons of the media will probably have to be supplemented by detailed investigations of particular factors within each medium The characteristic of media which has been most extensively investigated in this connection is the sense modality involved. A large number of studies of this problem have been made, many of which are summarized by Klapper (1949). The majority of the studies have found higher retention of simple material when it is presented orally rather than visually. Almost all show that the combination of visual and auditory presentation is more effective than either alone. But further work is needed to define the conditions under which one or the other is superior. There is suggestive evidence that the superiority of oral presentation is greater with the less intelligent subjects. There are also likely to be differences in terms of what type of material is to be learned; for some material, seeing the objects may be absolutely essential. Comparisons of sound versions with silent films on various topics may shed considerable light on these problems.

Another factor which may be involved in comparisons of media is in the extent to which presentation with motion is permitted. What are the conditions under which the *motion* involved in motion pictures as compared with the still presentation of sound slides with identical recordings is effective? Illustrative of the type of studies required is one by Hovland, Lumsdaine, and Sheffield (1949) comparing the points which are equally well learned from a sound film and a sound slide on map reading with those which are learned more effectively with one or the other medium. More extensive data on this and related topics are being compiled by the training film researchers of the Air Corps (Lumsdaine, 1953).

The extent to which exposure to the material is controlled by the subject is a third factor to

be explored. It has been mentioned frequently as an advantage of reading that it permits the reader to control his own pace and to go over the material if it is not completely assimilated on the first trial. This factor needs further investigation in isolation, where its effects are not confounded with all of the other differences between the media Comparisons of fixed and variable rates of presentation within a single medium are relevant here.

Lastly, the efficiency of media for imparting information and skills may be dependent on the extent to which they involve active or passive conditions of learning. Results from laboratory experiments (cf. review by Hovland, 1951) and from communication studies using sound slides (Hovland, Lumsdaine, and Sheffield, 1949) and films (Hoban and van Ormer, 1951) indicate that the greater the participation and involvement of the subject in the learning, the greater will be the acquisition. Can some of the differences in effectiveness between the media be attributed to this factor? According to Cantril and Allport (1935) reading differs from radio presentation in this respect. Radio permits greater passivity. Movies, on the other hand, are frequently said to be particularly potent in terms of involving the subject in the communication (Blumer, 1933).

Changing opinions and attitudes. When the objective of the communication is the changing of opinion and attitude the factors previously mentioned play a role to the extent that change in attitude or opinion is dependent on learning what the communicator is saying. But an additional group of factors is introduced by the requirement that the communication become *accepted* by the recipient. The differences in various media in terms of acceptance need further exploration.

One factor influencing the extent to which a message in a mass medium is accepted is the prestige of the medium. Various writers have stressed the fact that one medium may be more prestigeful than another (e.g., Doob, 1948). But this generalization would need further specification in terms of "prestige for whom?" Research in our own country suggests that for some, radio may be more prestigeful, for others print, and so on. During its period of novelty, television may be more prestigeful for certain segments of the population. In foreign countries radio may be more prestigeful than newspapers, possibly as a result of differences in political control. The latter point suggests that the media may in certain circumstances differ also in credibility and that the medium judged by an individual to be most trustworthy may be most effective.

A second factor which might be expected to affect the comparison of media would be the extent of social interaction. Knower (1935) reports that hearing a speech when a member of an audience is less effective than hearing it individually. On the other hand, Cantril and Allport (1935) suggest that radio may be more effective than print precisely because the individual feels himself part of a larger group listening simultaneously to the program. Detailed investigation of this problem is certainly needed.

The extent to which the medium provides flexibility of appeals constitutes a third factor. Here the comparisons would center about the relative advantages of various media in catering to special interests and differences in comprehension. Print is alleged to be particularly effective in terms of this factor, providing for specialized interests and tastes to a greater degree than other media. Flexibility is stressed by Lazarsfeld, Berelson, and Gaudet (1944) as an explanation for the efficacy of personal influence: "The clever campaign worker, professional or amateur, can make use of a large number of cues to achieve his end. He can choose the occasion at which to speak to the other fellow. He can adapt his story to what he presumes to be the other's interests and his ability to understand. If he notices the other is bored, he can change the subject. If he sees that he has aroused resistance, he can retreat, giving the other the satisfaction of a victory, and come back to his point later. If in the course of the discussion he discovers some pet convictions, he can try to tie up his argument to them. He can spot the moments when the other is yielding, and so time his best punches" (pp. 153f.). A learning theory formulation concerning temporal factors in mass communication yields a similar analysis (Hovland, 1948b). During the political campaign just passed attempts were made to increase flexibility of fixed presentation media by employing a two-way communication network between the studio and the listener. Questions raised by the man-in-the-street could thus be answered immediately by the political candidate in the television studio.

Inducing action. Still another objective of some communications is to precipitate action. The factors mentioned earlier may all be involved in convincing the recipient that the suggested action is appropriate, but additional ones are involved in producing the desired re-

sponse. The primary new factors here seem to be immediacy, flexibility, and surveillance. From Merton (1946) it appears that one of the reasons for Kate Smith's effectiveness was the timeliness of the action. Thus a rebroadcast where all elements were the same except for immediacy would have been expected to be less effective. It is possible that similar differences may be found in comparisons of television and film transcriptions of the same programs, particularly when events of public interest are presented.

Flexibility of appeals is relevant here again. This may have been involved as an explanation of Cartwright's (1949) finding that personal solicitation was much more effective than mass media appeals. There may also have been a third factor. personal appeals have the advantage that they can constitute a pressure to carry out an action and can provide surveillance as to whether the suggested action is carried out This is a phenomenon well known to salesmen, who try to sign up the prospect on the spot. For a discussion of some of the psychological aspects of this problem, the reader is referred to Kelman (1953).

The foregoing analysis suggests that in many instances the superiority of one medium over another is based on a large number of different factors. Thus face-to-face communication is almost universally reported to be more effective than that by radio, but to what extent this is due to oral versus visual plus oral presentation, to flexibility, "feedback," surveillance, attention value, or other factors is not at all clear. Overall empirical generalizations about media tend to overlook the number of different factors and their interaction. It is much to be hoped that future research will help clarify the problem by attention to some of the basic theoretical variables involved.

THE AUDIENCE — PERSONALITY FACTORS

In the preceding discussion consideration has been directed to the factors affecting changes produced by media for members of the audience *on the average*. In many instances more precise predictions of effects can be made if the characteristics of individual members of the audience are taken into account.

In a certain sense research on the nature of the audience is one of the most completely studied aspects of mass communication. There are a very large number of studies of who constitutes the audience for various media, i.e., who reads what magazines, who sees what kinds of movies, and so on. Several of these were cited earlier. From a practical point of view this is an important type of problem, because one of the most striking phenomena of mass communication is the extent to which audiences select themselves But in a chapter concerned with effects, we must concentrate our attention on the changes produced by mass media in those who are exposed. At the same time, however, we must always bear in mind that attempts to produce changes in significant segments of the audience may be unsuccessful either because they fail to influence those exposed or because the people one wants to reach do not become exposed to the communication.

Our primary interest in the present section is to account for variations in the extent to which individuals who are exposed to a given communication are influenced by it. In the volume by Hovland, Janis, and Kelley (1953) there is a discussion of the role of two general factors which play a significant part in determining variation: (1) intellectual ability, and (2) motivation. These are assumed to operate at three critical phases — in influencing whether the individual pays attention to the communication, whether he absorbs the content, and whether he accepts the message conveyed.

Acquisition of information. Almost all studies indicate some positive correlation between intellectual ability and the degree to which an individual acquires the content of a communication. Thus the amount of information about current events learned from newspapers and radio is consistently greater among those of
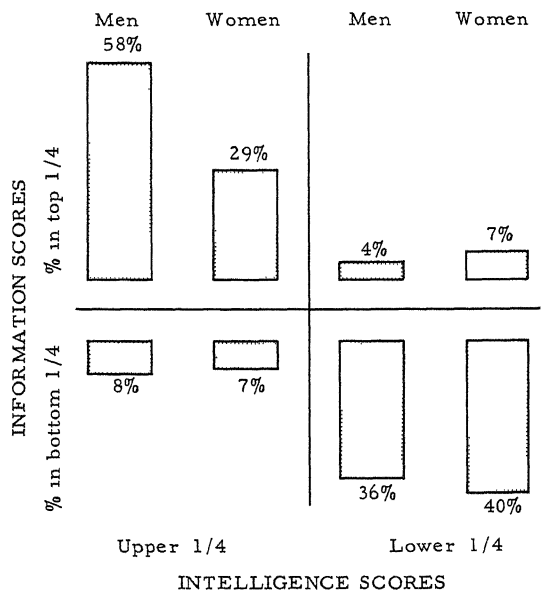
FIGURE 4.

higher education and greater intellectual ability. This is clearly shown in the study by Swanson (1951). His results suggest that

> . . . intellectual ability is the most important trait for predicting who learns from this class of news [about governmental activities], and that understanding the news about government imposes an intellectual task of significant dimensions upon the individual. (p. 227)

Sex differences were also found, which showed that "how the individual relates the news about government to the male or female social role has bearing on the amount of learning of factual information" (p. 228). Combining these two methods of prediction gave a multiple correlation of .60. These results may be seen graphically in Fig. 4.

Substantially similar results were found as to the amount of information acquired by soldiers from educational films. Hovland, Lumsdaine, and Sheffield (1949) found that for the heterogeneous population in the army, length of schooling was an adequate index of intellectual ability. Using this criterion they determined that the amount of factual information absorbed from seeing such films as *Prelude to War, The Nazis Strike, Divide and Conquer, Battle of Britain* increased with higher levels of ability. Results on this point are presented in Fig. 5. The authors point out that this is due only in part to superior proficiency in learning, since more intelligent men probably have a higher degree of interest in the material and more motivation to learn it. Also, individuals with higher intelligence and longer schooling will have acquired a better context of related information, which will facilitate the acquiring of new facts.

FIGURE 5.

Differences in motivation also play an important role in determining how much is learned from communications In fact, the most important determiner of the amount an individual will acquire from exposure to media is probably his interest in the topic. This is particularly the case with materials where the inherent motivation to learn is low. Incidental learning plays a major role here, and there is an extensive literature which should be studied in this connection. In the study by Swanson (1951) just mentioned there was an analysis of the amount of information acquired as a function of the audience's expression of interest in a topic on an earlier occasion. In Silvey's (1951) study on the intelligibility of broadcast talks he found not only that intelligibility was related to the listener's educational level, as we should of course expect, but also to the "interestingness" of the material.

The manner in which motivational factors influence the absorption of points has been investigated to some degree in the laboratory (cf. Bartlett, 1932), but more recently in real life communication situations. An interesting study of the effect of religious affiliation in determining what will be learned from a film is reported by Kishler (1950). The motion picture *Keys to the Kingdom* was shown to Catholic, Protestant, and Jewish subjects. It was found that Catholics learned slightly more from the film than non-Catholics and that those who regarded the central character, the Catholic priest, as more prestigeful were inclined to be more influenced in their attitudes. Another study showing the effect of motivational factors on responses to communication is that by Kendall and Wolf (1949). They used a series of cartoons in which a "Mr. Biggott" was depicted as a cantankerous and unpleasant man who displayed various types of antiminority prejudices. "Because the cartoons portrayed bigots in such an uncomplimentary fashion, correct understanding carried with it a threat to the self-image of the prejudiced reader. He was therefore predisposed *not* to understand that the cartoons dealt with prejudices or that they ridiculed persons who held such attitudes." Those most concerned "saw the larger implications of antiminority attitudes . . . as a limitation on the effective functioning of democratic processes," and "This awareness and concern provided such respondents with a frame of reference which predisposed them to understand
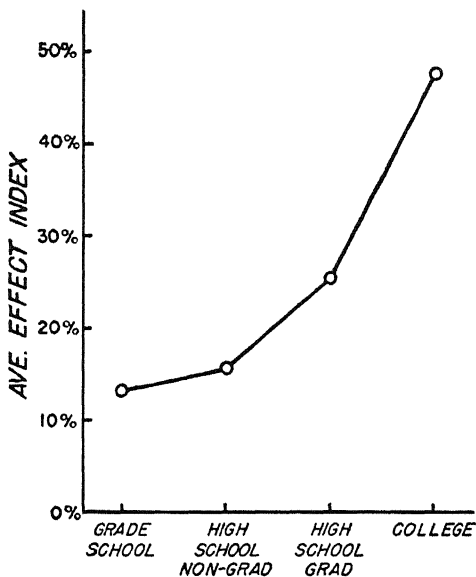
TABLE 6

DIFFERENCES IN EXTENT OF MISUNDERSTANDING OF CARTOONS AS A FUNCTION OF AMOUNT OF PREJUDICE
(From Kendall and Wolf, 1949, p. 163)

Group	*Percent misunderstanding cartoon*
Prejudiced: Unaware of implications	68
Mixed: Prejudice and aware, or unprejudiced and unaware	31
Unprejudiced and *aware*	3

the cartoon message correctly" (p. 162). Table 6 shows the percentage of individuals with various classifications of prior position who misunderstood the cartoons. The remainder of the analysis is primarily devoted to the deviant cases who misunderstood despite lack of prejudice and presence of awareness, or who understood in spite of prejudice and lack of awareness. The studies of Cooper and Jahoda (1947) and Cooper and Dinerman (1951) show similar misconceptions of communications.

Modification of attitudes, opinions, and beliefs The relationship between intellectual ability and changes in belief and attitude is much more complex. Here we should expect that changes are dependent both on the learning of the content of the communication ("what the communicator says") and on the acceptance of what the message implies The first factor would be expected to vary with intellectual ability in a positive way, just as in the case of the learning of informational items. But the second factor may be inversely related to intellectual ability While this has not been extensively studied in the field of communication, there is considerable evidence to indicate that the more intelligent are more difficult to convince, less gullible, and less apt to be readily influenced by propaganda. Burtt (1938) summarizes considerable evidence from the commercial field to indicate that belief is most readily accorded by the less intelligent members of the audience. A study by Wegrocki (1934) also showed that the extent to which children accepted propaganda concerning such topics as politics and religion was greater among the less intelligent children than among the brighter.

Further evidence of the inverse relationship between intelligence and susceptibility to propaganda comes from the study of the reactions of radio listeners to the Orson Welles broadcast reported by Cantril (1940). A basic difference between those who were taken in by the broadcast and those who checked it was said to be in degrees of "critical ability." As an index of this ability they used the amount of formal education attained.

TABLE 7

EVALUATION OF ORSON WELLES BROADCAST BY DIFFERENT EDUCATIONAL LEVELS
(From Cantril, 1940, p 112)

Education	*Percent who thought program was news report*
College ($N = 69$)	28
High school ($N = 257$)	36
Grammar school ($N = 132$)	46

> For theoretically, at least, education instills a readiness to examine interpretations before accepting them and at the same time gives people a certain fund of information which should provide useful pegs for their own evaluations. (p. 112)

The results obtained from this analysis, presented in Table 7, indicate that the number of people believing the program without checking further is significantly higher for the low education group as compared with the high. Nearly half of the grammar school group was convinced that an authentic invasion from Mars was occurring, while only a little over a quarter were similarly convinced in the upper educational group.

If, as Hovland, Lumsdaine, and Sheffield (1949) suggest, the extent of attitude change is a joint effect of both learning and acceptance factors, one would expect that in some cases the relations between intelligence and change would be positive, in some cases negative, and in some cases curvilinear. When a large number of items are pooled the two effects may produce cancellation. The relationship between opinion change and intellectual ability for two

items is shown in Table 8. An interesting fact which emerged was that items which initially showed a positive correlation with education were changed positively by the film, while those which showed a negative correlation were changed in an inverse fashion.

Even less is known about the role of personality predispositions and motives in relation to the effect of mass media upon acceptance and attitude change. It has been thought by some writers that there are underlying tendencies to be swayed by communications or to resist. Adequate investigation of the generality of such tendencies has not been made. It is interesting to speculate on the hypothesis that there may be some individuals who are highly suggestible, being influenced almost regardless of the content of the communication, some who will respond to one communication and not to another in appropriate fashion, and still others who will not respond or who will even react adversely to all communications. A number of hypotheses about factors making for high or low influencibility are discussed by Hovland, Janis, and Kelley (1953).

One of these hypotheses is that individuals with low self-esteem are predisposed to high influencibility. Some suggestion of the validity of this proposition comes from the correlational data obtained by Lazarsfeld, Berelson, and Gaudet (1944). After the fourth interview on voting intentions the interviewers were asked to rate the various members of the panel. Those who changed their votes were rated as less self-assured, narrower in their social interests, and less happy than those who resisted change.

A systematic investigation of the self-esteem factor was made by Janis (1954). Personality items were administered to all subjects in an experiment on the effects of verbalization and role playing. Three different communications were presented to the subjects. From the results the individuals could be sorted into those who changed on none of the communications, those who changed on one, two, and three (all). Those who were consistently affected by the

TABLE 8

DIFFERENCES BETWEEN ITEMS IN EFFECTS OF FILMS ON VARIOUS EDUCATIONAL LEVELS
(From Hovland, Lumsdaine, and Sheffield, 1949, pp. 163-164)

A. "Positive Correlation" Item. Percentages indicating belief that "appeasement made matters worse."

	Grade-school men	High-school men	College men
Percent in film group	56%	73%	82%
Percent in control group	53	61	67
Difference	3%	12%	15%
"Effectiveness Index":	6%	31%	45%

B. "Negative Correlation" Item. Percentages indicating belief that "Germans would enslave Americans if victorious."

	Grade-school men	High-school men	College men
Percent for film group	74%	66%	48%
Percent for control group	54	61	46
Difference (change)	20%	5%	2%
"Effectiveness Index":	43%	13%	4%

communications tended on a personality inventory to express feelings of social inadequacy, inhibition of aggression, and depressive affect. The comparison is shown in Fig. 6. One hypothesis as to a possible mechanism underlying the high influencibility shown by persons with low self-esteem is that their compliance is motivated by excessive fear of social disapproval.

A second hypothesis as to factors associated with influencibility is that this tends to be associated with social aggressiveness. This is suggested by Barry (1931) in his study of responsiveness to communication. Majority opinion was used as a basis for modification of opinion. Those who were little influenced by communications tended to be irritable and easily annoyed. Additional data bearing on this relationship comes from Newcomb's (1943) study done at Bennington College. An intensive personality analysis was made of 19 of the students who had shown great resistance to change, and these results were compared with those for 24 who had shown more than average amount of change. The studies of those who were resistant revealed overt opposition, aloofness, and low capacity for social relationships. Fewer of the compliant individuals were found to be aggressive. A correlate of resistance of influence through communication is found in social withdrawal and acute psychoneurotic symptoms. The individuals in Janis' study who were low in influencibility tended to rate themselves as having a large number of neurotic anxiety and obsessional symptoms.

In recent years considerable interest has attached to investigation of personality factors in responsiveness to prejudice-arousing and anti-prejudice propaganda. One of the few studies which have employed controlled communications is that of Bettelheim and Janowitz (1950). Anti-Semitic propaganda booklets were mailed to a sample of fifty veterans whose tolerance-prejudice characteristics had previously been determined. Thirty-three of these were reinterviewed two weeks after receiving the pamphlets. While there was a general tendency for those formerly classified as "tolerant" to disapprove of the anti-Semitic propaganda, the relationship was far from perfect. The men who were "intolerant" tended to approve the material, but the data from those in the intolerant group who disapproved indicated that when too extravagant statements were made their anxiety was aroused.

THE AUDIENCE — SOCIAL AND CULTURAL DIFFERENCES

The personality differences just discussed represent predispositions which are determined by the particular life history of the individual. There are also predispositions which are more general, and are common to members of a particular group or culture. These need much more adequate investigation than has been given them to date. Illustrative are some of the results which have been mentioned in other contexts showing that the responses of an individual to movie or radio programs are affected by the social and cultural group to which he belongs. In Ramseyer's (1939) study of the influence of four governmentally produced motion pictures, *The Plow that Broke the Plains, The River, Work Pays America,* and *Hands,* he found that

FIGURE 6.

changes in attitude were relatively small among upper middle class children of professional parents, and were considerably greater among children whose parents were farmers, laborers, and white collar workers While part of the effect may be attributable to learning ability differences, the data are consonant with the theory that there are real differences in the predispositions of different social groups Similarly, in the Wiese and Cole (1946) study, the investigators found interest differences between children from different economic and cultural backgrounds. The treatment suggested for the delinquent Nazi boy by the upper-class children was "rational" and "educational," whereas that suggested by the Mexican, Negro, and other underprivileged children was "emotional," with frequent suggestion of the child's need for camaraderie.

One general line of investigation which is of high priority is the systematic exploration of cross-cultural differences in communication behavior. Too many of the generalizations about reactions to communication are based exclusively on American audiences. (This is not to mention the extent to which they are based mainly on American college sophomores!) Investigations of the type of that by Dodd (1934), who studied the effects of hygiene communications in Syria, are needed in many other cultures It must be recognized, of course, that this will be difficult to accomplish, as Inkeles' (1950) study makes clear. It is easier to secure records of the communications prepared and the media used in other countries than to find out the extent to which these communications modify behavior. One type of problem responsible for differences in effects is that of monopoly control of communication. This has been discussed in a most interesting manner by Lazarsfeld and Merton (1948), Klapper (1949), and others, but there appear to be few actual data available for analysis. Studies of other countries in terms of audience predispositions to accord high or low prestige to particular media are currently being made in connection with evaluations of the effectiveness of various aspects of the State Department's Informational program (cf., e.g., Fiske and Lowenthal, 1952, and the Winter 1952-53 issue of the *Public Opinion Quarterly*). It is hoped that this may not only contribute useful practical information for policymakers but have important scientific utility as well.

Within a group there are also important differences in communication behavior which may have important bearing on the effectiveness of communication. Riley and Riley (1951), for example, compare the reactions to mass media of children who belong to peer groups and those who do not. The implications with respect to social structure are discussed.

> . . . peer group members, oriented as they are to the need for getting along in the group, appear to judge media in terms of a criterion which we might call *social utility,* to select media materials which will in some way be immediately useful for group living.

This will in turn affect their susceptibility to influence.

An experimental approach to some of these problems is represented by the work of Kelley and Volkart (1952). They investigated the hypothesis that susceptibility to communication (on topics opposed to the group norm) is inversely related to the individual's evaluation of his group. Communications were presented to twelve Boy Scout troops, with questionnaires before and afterward. The norm against which the communication was directed was the positive attitude commonly held by Scouts toward woodcraft skills, forest lore, and camping activity. The outside speaker delivered a standardized communication criticizing woodcraft activities and forest lore, and suggesting that modern boys would profit more from learning about their cities and urban problems From the before-questionnaires, information was obtained as to each scout's valuation of membership, changes in attitude toward woodcraft and forest lore were obtained by comparing the before- and after-questionnaires. The rank order correlation between the amount of change and valuation of membership was —.71. Thus, as hypothesized by the authors, membership in a group serves to increase the individual's resistance to change in opinion when subjected to propaganda by outsiders.

Individuals often belong, of course, to various groups, some of the groups having conflicting norms (cf. Lazarsfeld, Berelson, and Gaudet, 1944; Kriesberg, 1949). Under these conditions one or another of the individual's affiliations plays a dominant role in responsiveness to communication. One factor involved is the individual's awareness of the group norm at the time when the communication is presented. This problem has been analyzed by Kelley (1952) in terms of the "salience" of membership. The hypothesis tested was that when group-anchored attitudes are exposed to counterpressures, their resistance to change at the particular time will be greater with high salience of the relevant group than with low. The extent to which membership in a group was salient was experimentally investi-

gated. Classes containing both Catholic and non-Catholic students were examined. Some of the students received preliminary reading which heightened the salience of Catholic Church membership, while the control subjects received neutral material. The communication revealed how typical students answered the items. The "typical responses" were fairly divergent from those most acceptable to Catholics. In the first experiment, in which high school students were used, it was found that the initial arousal of "salience" of membership in the Catholic Church reduced the extent to which the subjects were influenced by the communication. The differences were much less marked for the college students.

THE EFFECTS

While all of the studies cited have been concerned with the effects of communication, there is at present no adequate conceptual framework within which to classify the diverse types of effects reported. One distinction frequently made is between long-term and short-term effects. Discussion of the differences between immediate and long-time effects will be found in the concluding portion of this section. Some authors distinguish between effects which are "manifest" and those which are "latent." Some effects can be described as "intended" and others as "unanticipated consequences." Thus changes in knowledge produced by mass media may be described often as intentional, whereas increases in crime produced by crime movies or comic books would be categorized as "unintended" or "unanticipated" consequences. But the description of intention is a difficult one to employ for scientific purposes because often there is little clarity as to purposes and even where there is, there are mediate or remote purposes. Thus the purpose of a radio program may be described as "entertainment," but from the standpoint of the sponsor entertainment is primarily a mechanism for getting the attention of an audience, lowering its defenses, and selling them products Another classification is represented by Lazarsfeld, Berelson, and Gaudet (1944) in their analysis of the effects of mass media in connection with political behavior, where three main types of effects are distinguished: activation, reinforcement, and conversion.

Still another type of classification is employed when distinctions are made between psychological, political, economic, and sociological effects. The use of this method of classification by scientific discipline may seem artificial and arbitrary, but it does highlight the impression that writers in the various disciplines use the term "effects" to designate extremely different responses. To the historian and political scientist "effects" are primarily the long-term cumulative influences of various communications on ideas, and their consequences for society. To a large number of psychologists the "effects" of media are primarily the relatively short-term changes in opinion and attitude which can be experimentally evaluated by questionnaires. To many other individuals "effects" mean immediate audience reactions to a medium, such as "liking" or comprehension, using data concerning these reactions derived from an analysis of interviews supplemented, perhaps, by polygraphic recording.

The diversity of bases for classification emphasizes what must be an obvious fact, that "effects" can only artificially be abstracted from the stream of behavior which is of concern to the communication analyst. Thus one cannot talk about *the* effects, but only about particular sets of responses selected for study. For a given purpose, one classification may be useful for analysis; for another purpose another breakdown may be more revealing. For a better understanding of the diversity of effects which have been investigated, the present review briefly sumarizes the principal classes of responses which have been studied and indicates the studies which employed each.

Entertainment. The principal effect of many media lies in their providing for the entertainment of the audience. Commercial motion picture producers tend to evaluate the effectiveness of their products in entertainment terms, using as a criterion box-office success, and pretest them by "previews" in which the audience's liking for a particular movie is determined. Similarly, an evaluation of radio programs is frequently made by means of immediate audience reactions of liking or disliking the various parts of the program. Some of the methods used are described by Hollonquist and Suchman (1944). Figure 7 presents one of their charts showing minute-by-minute records concerning audience reactions.

While there exist a large number of studies concerning the entertainment value of different programs and media they have not been discussed in the present chapter. They are relevant to the analysis of other effects only to the extent that entertainment value is correlated with "interest" and achievement of other objectives is in turn dependent on degree of interest. While high interest does not guarantee that the content of a communication will be learned or
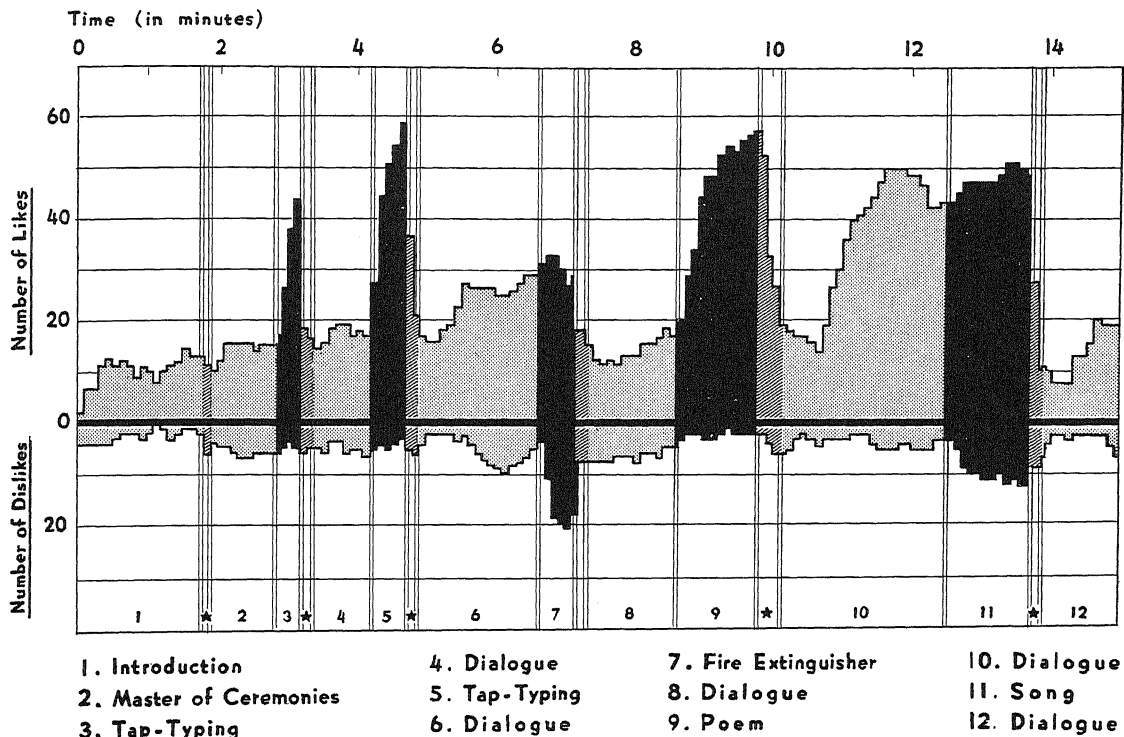
FIGURE 7.

accepted, complete absence of interest may prevent the achievement of the other intended effects.

Knowledge, information, and skill. One of the most obvious effects of mass media is found in the transmission of information. Most of our knowledge of the world in which we live and of daily events is derived from mass media. The process of information transmission occurring in schools through textbooks and visual aids continues throughout adult life by means of books, newspapers, magazines, radio, television, and movies.

Since problems in this area are of direct concern to educators, whether in schools and colleges or in industry and the army, there has accumulated a considerable body of data concerning the transmission of specific factual information and the teaching of skills. To cover this extensive area of research would be impossible in a general review like the present one. Accordingly, the interested reader is referred to texts on the psychology of learning and educational psychology, and to more specific reviews such as Dale, Dunn, Hoban, and Schneider's entitled, *Motion Pictures in Education* (1937), Hoban and Van Ormer's *Instructional Film Research 1918-1950* (1951), and the summaries of radio research in the annual yearbooks of the Institute for Education by Radio, entitled *Education on the Air.*

But there are considerable gaps in research concerning the effects of mass media on the general knowledge of adults. One medium, for example, which is of great importance but has been little studied from this standpoint is the newspaper; a recent investigation by Swanson (1951) typifies the type of research needed to provide more information in this neglected area. Radio has likewise not received an extensive analysis in terms of its impact on the spread of information and knowledge, although studies of documentary programs are beginning to appear (cf., e.g., Wilson, 1948a).

PREDISPOSITIONS

(a) *Preferences and tastes.* The prototype of more complicated changes in attitudes and behavior may be the simpler process of preference modification. Thus changes in preference for foods, for example, may have many of the basic elements necessary for understanding more complex changes in beliefs and attitudes. Surprisingly, however, relatively few systematic studies have been done in this area. It is likely that movies often change people's preferences for one type of clothing as compared with another, and that radio modifies preferences for

musical selections, but systematic data on the changes are scarce, either they have not been compiled or they are buried in the confidential files of commercial organizations. In most of these cases, of course, one would expect that the mass media merely set the stage for modifications which finally take place as a result of direct face-to-face interactions (cf Lazarsfeld and Merton, 1948).

The type of highly simplified situation in which modifications of taste preferences may be examined is illustrated by a study of Duncker (1938). Nursery school children were told an exciting story in which the hero violently abhorred one kind of food and enthusiastically relished another. At the end of the story, and again on subsequent days, the children were confronted with the two foodstuffs and asked to try them out and tell which they liked best. The food chosen as being pleasing to the hero of the story was initially less attractive to the children, while his disliked food was initially preferred by them, and the problem was to determine whether or not children could be made to reverse their prior preference as a result of a communication describing the likes and dislikes of a hero. This story left a decidedly positive aftereffect which decreased with time. Some effects were still observed between the sixth and the twelfth day. Figure 8 presents the results of this study. The implications of the research are discussed by Duncker in terms of possible modifications in liking for an object The most interesting hypotheses for mass communication concern the ways in which the "functional" and "symbolic" meaning of an object may be changed. Further information concerning the modification of food preferences through the use of mass media are reported in Bulletin 111 of the National Research Council (1945).

The more complex types of preferences represented by tastes in art, literature, and music may also be influenced by mass media There is a widespread feeling among many individuals that the mass media are responsible for a general lowering of public tastes. The scanty data bearing on this problem are well summarized by Klapper in his memorandum on *The Impact of Mass Media upon Public Taste* (in Klapper, *The effects of mass media,* 1949). His general conclusion is that media do not lower tastes, but tend to satisfy already established tastes, "bringing the better material to those who like better material and the poorer material to those of lesser taste. The media thus tend to reinforce rather than alter already established taste patterns" (pp. I-26).
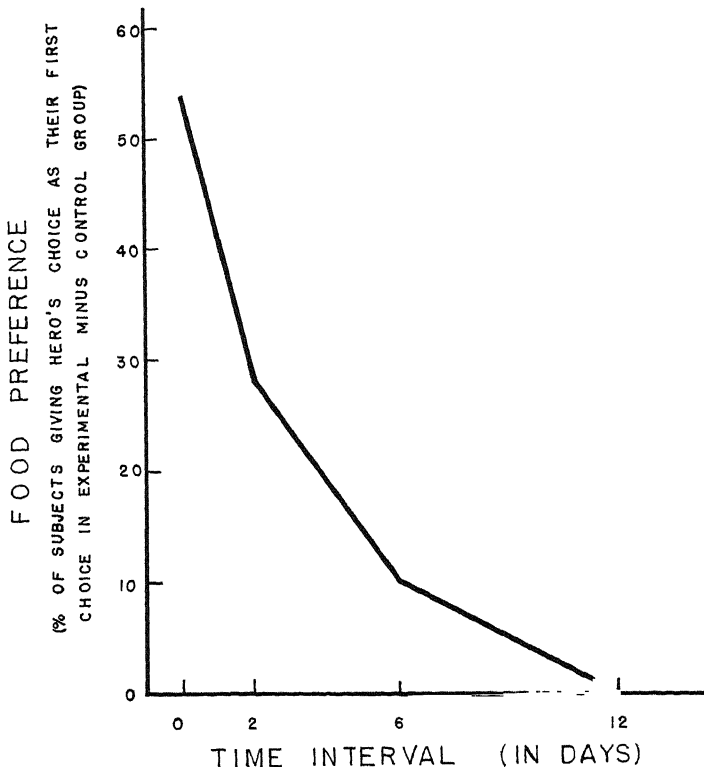
Figure 8.

Under some conditions the mass media may also stimulate serious interests and tastes. Thus Suchman (1941) found that about half of the listeners to a radio program of serious music had had their musical interest initiated or developed by radio. In most of these instances a predisposition to be interested had already existed and radio served as an "energizing influence" for the development, providing among older individuals a "second chance" to acquire musical knowledge which other individuals acquired in childhood

But listeners whose taste was developed through radio may have different standards of quality than individuals whose interest developed during childhood. According to Suchman, these listeners exhibited a less sophisticated approach toward music. In this connection he states·

> The evidence points toward the building up of a pseudointerest in music by the radio. Signs of real understanding are lacking Familiarity, without understanding, seems to be the result. Music is listened to for romantic relaxation or excitement, without any concern for the development or the relations of the music. (p. 179)

The methodological difficulties of research in this area are, of course, very great. Tastes develop slowly over a long period of time and hence the growth may take a long period of observation. Moreover, to classify the types of tastes on the basis of *post facto* reports on the factors influencing their development may, as Stouffer (1942, p. 143) has pointed out in connection with Suchman's study, lead to serious questions of interpretation.

(b) *Opinions, beliefs, and attitudes.* Probably no area of effects has been more extensively investigated than this. In the early studies the question usually asked by the researcher concerned whether opinions and attitudes could really be changed by mass communications. Only in later investigations has there been an emphasis on what variables in the communication affect the degree to which various changes are brought about, and the extent to which prior positions are "reinforced."

The techniques used in researches in this area have primarily involved before and after questionnaires, frequently with Thurstone type attitude scales. As in other areas of social psychological investigation, there are no generally agreed upon definitions of the primary objectives of these studies. Attitudes, sentiments, beliefs, and opinions tend to be used without clear-cut distinctions. This may be the result of the extensive use of questionnaires, where differentiation of verbally expressed tendencies is difficult. The other theoretical problem stemming from the questionnaire approach is in knowing how general are some of the changes produced It has been argued that despite the considerable effect of communications on verbal expressions, deep-seated underlying attitudes are not greatly modified. Studies are cited where it appears that the more general the content area the smaller the amount of change produced by mass media. Thus in the investigations by Hovland, Lumsdaine, and Sheffield (1949) it was found that while knowledge and interpretations of facts were modified by "indoctrination" films with comparative ease, basic approach or avoidance tendencies which constitute general attitudes were most difficult to change. This represents a topic on which a great deal of fundamental research remains to be done. Careful investigation must be made of the range of stimuli to which the modifications of response will be made, and of the range of responses that will be affected following exposure to the communication.

(c) *Prejudice.* An extremely important area of attitude which has social significance is that concerning minority groups, especially where prejudices are involved. This topic is examined exhaustively in Chapter 27. For the present purpose it will suffice to point out that mass media have been found to have significant effects on the amount of antiminority sentiment expressed by various groups. One of the most comprehensive surveys of this problem appears in a memorandum prepared by Rose for the American Council on Race Relations, entitled *Studies in Reduction of Prejudice* (1947). Studies done in this area seem to indicate that, under favorable conditions, lectures (e.g , Smith, 1943), readings (e.g., Remmers, 1938), and movies (e.g., Peterson and Thurstone, 1933) change evaluative responses concerning racial and nationality minorities. A considerable amount of research on this topic is being conducted by various antidiscrimination organizations. It is to be hoped that these studies will in the future shed considerable light on the manner in which basic attitudes are changed by the mass media.

An excellent analysis of the theoretical conditions under which mass media can be effective in reducing prejudice has been published by Flowerman (1947), who points out the weaknesses in many of the current attempts in this field. Research suggestions concerning the role of the mass media in the reduction of prejudice are discussed by Williams in *The Reduction of Inter-group Tensions* (1947).

(d) *Stereotypes.* Many prejudices involve faulty generalizations about the characteristics of the group concerned. They are thus *stereotypes,* a term popularized by Lippman (1922). Lewin and Grabbe (1945) suggest an important bridge between social psychology and the psychology of learning through the viewing of incorrect stereotypes (prejudices) as being functionally equivalent to wrong concepts. Systematic studies of the relationship should prove profitable. An analysis of stereotypes has recently been made the focus of a series of studies by UNESCO. These researches are concerned with the conceptions entertained by the people of one nation regarding themselves and other nations. Klineberg describes some of these studies and the background of earlier related research in *Tensions Affecting International Understanding* (1950). Significantly, however, he reports no research on the modification of stereotypes. This is an important area in which systematic studies of the impact of mass media are greatly needed One wonders, for example, whether the methods of changing stereotypes used by Marrow and French (1945), through face-to-face discussion, can be modified for utilization through mass media.

OVERT BEHAVIOR

(a) *Purchasing.* Advertising represents the most extensive utilization of the mass media, designed for the most part to induce buying behavior. Because of the economic importance of this activity, considerable research is directed toward evaluating the effectiveness of the mass media in bringing about sales. But since little of the research conducted ever sees the light of day, because of commercial secrecy, evaluation of the studies and their implications is impossible. Only occasional and partial reports appear in journals of advertising and applied psychology.

The great majority of the researches on buying are set up to evaluate some particular type of program of campaign, and hence have little generality. Others are primarily concerned with technical factors, such as size of type, location of the message on the page, color, etc. Good reviews of such studies will be found in Burtt (1938) and Lucas and Britt (1950). An example of the type of study which contributes to our general understanding of communication via the mass media is that by Lucas and Benson (1930) on the relative efficacy of "positive" and "negative" appeals in inducing sales.

An attempt to use experience gained from War Bond campaigns of World War II as a basis for generalizations about mass communication was made by Cartright (1949). Research done to evaluate the effectiveness of the various drives was used by him to illustrate problems of creating the proper "cognitive structure," "motivational structure," and "behavior structure." But his most important substantive finding was that the mass media serve principally to create the background conditions for buying, and that the precipitation of purchasing behavior is best accomplished through direct personal solicitation.

Despite the paucity of research on purchasing which may be used as a basis for generalizations, advertisers have not hesitated to employ their experience in selling cigarettes, liquors, and soaps in giving advice to all and sundry on ways of making effective use of the mass media in influencing other types of behavior, such as giving blood to blood banks, creating a willingness to undergo deprivations associated with army life, reducing prejudice, and so on. There are doubtless many factors in common between buying behavior and the other types just mentioned, but there are also significant differences. As Flowerman (1947) has pointed out, "The known successes of commercial advertising are often mistakenly taken as model-goals for mass protolerance propaganda. But the commercial advertiser does not try primarily to convert, e.g., those who do not brush their teeth to the practice of brushing their teeth; his prime purpose is to stamp in — for those who *do* brush their teeth — an associative link between the *genus,* tooth cleanser, and a *sub-genus,* a particular brand of tooth-cleanser" (p. 430). Similarly, Lazarsfeld and Merton (1948, pp. 114-115) write ". . . the leap from efficacy of advertising to the assumed efficacy of popaganda is as unwarranted as it is dangerous . . . Mass propaganda typically meets a more complex situation. It may seek objectives which are at odds with deep-lying attitudes. It may seek to reshape rather than to canalize current systems of values." Further discussion of this problem will be found in Hovland (1948a) and in Wiebe (1951).

(b) *Voting.* The millions of dollars spent during each election on radio, television, and newspaper campaigning attest to the widespread belief in the efficacy of the mass media in influencing voting behavior. Anecdotal "evidence" can be furnished on either side of the issue as to the real value of the mass media in influencing voting, citing (as was mentioned earlier) either the poor showing of certain candidates who failed to utilize the mass media extensively, or data proving that a candidate

heavily supported by the press often loses an election.

One of the early systematic studies of the influence of communication on voting was reported by Gosnell (1927) in his *Getting Out the Vote.* A list of all eligible voters in twelve different sections of Chicago, comprising a sample of about six thousand, was compiled. Half of the groups were then subjected to various appeals to register sent through the mail, while the remainder were used as controls. After the first mailing, 42 percent of the experimental group registered while only 33 percent of the control group did so. By the close of the registration period, both percentages increased until three-quarters of the group exposed to the mass media had registered, while only two-thirds of the control group had done so

It will be recalled that the data of Hartmann (1936), cited earlier in connection with a discussion of appeals, seemed to indicate that leaflets significantly affected the number of votes for the Socialist party during the campaign of 1935. Perentesis (1948) reported that a thirty-second movie trailer appreciably benefited a political candidate in a Detroit election in April 1945. Who was exposed to the film was inferred from residence near locations where the film was displayed. With only a two percent difference between the voting in these areas and that for the city as a whole, the results are far from conclusive.

The most extensive investigation of the relationship between voting preferences and the media of communication is that by Lazarsfeld, Berelson, and Gaudet (1944). They interviewed a panel of informants six times at monthly intervals before the 1940 election, and once following it. Whenever a person changed his voting intention in any way between one interview and the next, detailed information was gathered as to the reasons for the change. The respondents were interviewed regularly regarding their exposure to campaign material in all the media of communication. The results indicate that individuals who did the most reading about and listening to campaign communications were most impervious to influence, since these were predominantly people who had already made up their minds on their voting intentions. A more detailed discussion of studies dealing with voting behavior will be found in Chapter 30.

The studies cited by no means cover all of the indices of effect studied. The reader is reminded, for example, of the studies of unintended, adverse effects of movies on delinquency reported by Blumer and Hauser (1933) and others cited earlier. These effects are currently of considerable concern in the evaluation of comic books (Seldes, 1950) and television (Shayon, 1951).

Retention of effects. Once changes in preferences, attitudes, or overt behavior have been produced, are the effects transient or are they relatively enduring? The present section will review the empirical evidence, and give an analysis of some of the factors upon which the extent of retention depends.

In the study of retention it is important, at the present stage of research, to make distinctions between the various types of effects produced. Probably we shall ultimately find that the principles are basically the same for all types, but that they are weighted with different factors. Let us first, then, turn to the studies which have been made of the retention of knowledge transmitted by mass media.

Retention of information. Relatively little research has been done on the retention of effects under the naturalistic conditions which obtain with ordinary mass media. This is primarily because of the methodological difficulties involved in segregating those who expose themselves to various media. Thus, in order to determine how much is retained of a newspaper story read under naturalistic conditions, it is not easy to determine who has read the story. This is a particularly severe requirement when one wishes to avoid the difficulties which arise from a double testing of the same individuals.

As a result of these difficulties, almost all of the research on retention has been done under artificial but controlled conditions. Studies of this sort simulate real life conditions to varying degrees. Classroom and lecture situations are well suited for the investigation of one type of mass communication situation, where a setup like a captive audience is the normal use of the medium. Thus Dietze and Jones (1931a, b) studied the extent to which a written passage was remembered after varying intervals of time. Passages of prose were read to the subjects, and recall scores were then analyzed. The results are indicated in Fig. 9, which shows a rapid initial fall, followed by a gradual loss.

Somewhat higher retention has been found by Holaday and Stoddard (1933) following the presentation of films. Typical percentage retentions after three months were from 80 to 90 percent. In the study by Hovland, Lumsdaine, and Sheffield (1949) approximately 50 percent of the factual information acquired from the films was lost after a lapse of nine weeks. But it must be pointed out that detailed study of the methodology of each investigation is re-
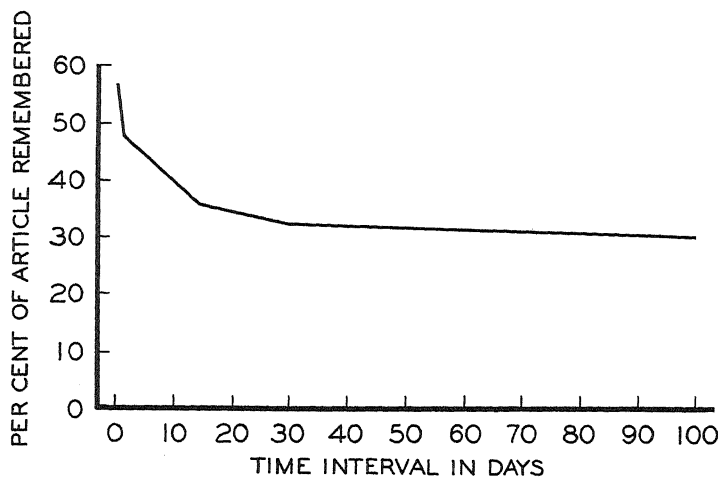
FIGURE 9.

quired because the percentage retention data are not necessarily comparable from study to study. One of the reasons for the lack of comparability is the difference in criteria used in evaluations. From the data of the experimental laboratory we know that the differences between recognition memory and exact reproduction are sizable. In communication studies the difference between test items can produce important differences in percentage figures. This is well illustrated in the study by English, Welborn, and Killian (1934). These investigators found that items calling for knowledge of details were forgotten fairly rapidly with time, but that items which required memory for the gist or substance were retained with little loss over long periods of time.

While many of the results from laboratory investigations have direct application in the interpretation of communication phenomena, in the case of retention a very complex pattern of effects is at work. In the laboratory the materials learned are seldom of relevance outside, so the curve of retention is usually measurable in terms of its aftereffects. In the case of communications, however, the effects of the original communication and of subsequent experiences are more difficult to disentangle. Very often the communication sets the stage for influences which operate later. Thus an article in a magazine can arouse interest and stimulate individuals to discuss an issue and they will be influenced not primarily by the original article but by the discussion that they will become exposed to by their associates. Similarly, when a question is raised in a communication the individual may become curious about obtaining an answer to it, even though the answer is not derived from the communication.

Persistence of opinion changes. The course of the retention of changes in opinion and attitude is less well known. In the case of newspapers and magazines few long-time studies of the retention of change have been made. For motion pictures, one of the early studies of retention of opinion changes was by Peterson and Thurstone (1933). These investigators presented motion pictures to children in the public schools and determined the changes in attitude scales from before to after the showing. In some cases the time interval between the showing of the film and the test for retention was as long as eight months. The retention was significant, but the range was from complete loss to an actual increase with the passage of time.

While some of the items in the study by Hovland, Lumsdaine, and Sheffield (1949) showed a decrease in effect with the passage of time, there were a large number of effects which increased in magnitude with time. Describing these increases with the passage of time as "sleeper effects," the authors suggest a number of hypotheses to explain these effects:

1. Predispositional factors may account for the increase. Here it would be assumed that the members of the audience are already predisposed to accept the opinions advocated in the film. The film simply constitutes an additional precipitator of the to-be-expected effect. This hypothesis would be related to Lazarsfeld, Berelson, and Gaudet's (1944) activation phenomenon. Hovland, Lumsdaine, and Sheffield present considerable evidence that individuals who are in educational groups predominantly accepting the position advocated by the communication are apt to be favorably influenced by the film, while those who belong to groups

not accepting the position are less apt to show the sleeper effect.

2. A related hypothesis is that the increase in opinion shift is caused by communication outside the situation but instigated by the communication. This would occur if the audience members were influenced to discuss with other individuals the issues raised, and then these others affected their opinion. The communication would then primarily provide the setting for the effects of discussion to occur. The evidence for this phenomenon would be substantially of the same character as that just discussed; i.e., that those who belonged to groups espousing particular opinions changed in the direction of the opinions of their associates.

3. Also closely related is the hypothesis that while the forgetting of content is the rule, the implications of the initially learned material may not be at first apparent but become so when the material learned becomes relevant to new experience.

4. A fourth possibility is that when the material is initially presented it is discounted by the communicatee on the grounds that an effort is being made to influence his opinion, that the material is biased, or is propaganda. At the outset, therefore, he may not accept what is presented and hence his belief is little affected. With the passage of time, however, he may forget where he learned the material and, remembering the content, be inclined to believe the position originally advocated by the communication when the issue comes up.

The first systematic study of the last-named hypothesis was conducted by Hovland and Weiss (1951). Persuasive communications were presented to college students ostensibly as tests of reading efficiency. In half of the cases the articles were signed by writers or media known to the readers as "trustworthy"; in the alternative forms the same articles were attributed to sources believed by the readers to be "untrustworthy." As reported above, sizable differences were found in the amount of influence of the two types of communicators, at the conclusion of the reading. When the permanence of the change was tested, however, four weeks later, it was found that trends were in an opposite direction for the two types of communicators. There was a loss of about 50 percent in the group exposed to the trustworthy communicators, but there was an increase in agreement among the subjects who had been exposed to the same material presented by an untrustworthy source. These results are presented in Fig. 10.

The data are in line with the expectation that a sleeper effect will occur when one initially discounts a particular source but in time forgets the source. But the data of Hovland and Weiss do not indicate that extensive forgetting is involved, since subjects did remember the author of the article when they were asked the question directly as to who had written the material. Rather, it appears that there may be a tendency not to associate the originally learned label with the issue and that this association is decreased with time.

A more critical test of the hypothesis would be to determine whether the absence of critical effect could be removed by reinstating the communicator. An experiment of this type was conducted by Kelman and Hovland (1953). Three types of communicators, "positive," "negative," and "neutral" (described above) were used to present the same message. Essen-
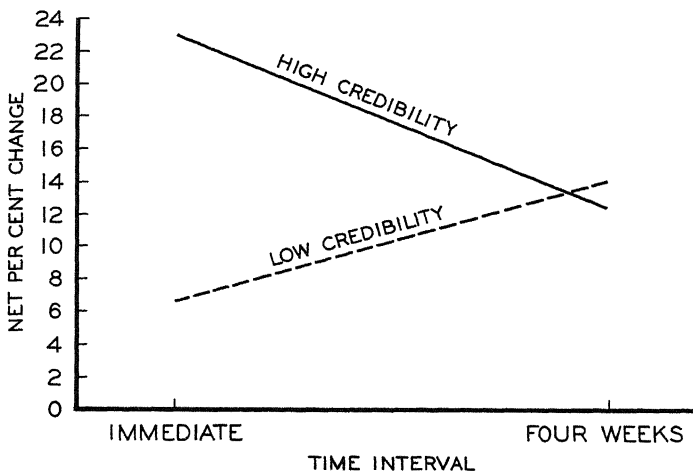
FIGURE 10.

tially the same results were obtained as in the preceding experiment; the positive communicator affected opinion initially to a greater extent than the negative, and the neutral was intermediate. After the lapse of three weeks there was no substantial difference between the beliefs, regardless of the communicator used. When a portion of the introduction was replayed to the subjects, however, the initial differences in belief emerged, so that reinstatement had the effect of increasing belief in the case of the positive communicator and decreasing it in the case of the negative. The authors present a hypothetical model for the interaction between the learning of the content, the acceptance of the communicator, and the reinstatement (Fig. 11).

As mentioned earlier, the typical naturalistic communication situation is quite different from that of the laboratory in terms of the operation of influences arising after the initial exposure. Thus another way of evaluating the extent of the retention of effects is to determine whether they are of sufficient magnitude to survive the interference produced by outside influences. The study by Janis, Lumsdaine, and Gladstone (1951) indicates that sizable residual effects of an initial communication persist even when a real life communication serves to affect opinion in the opposite direction. Taking advantage of a naturalistic situation, these investigators determined how different types of prior preparation for the likelihood of Russia's having the atomic bomb affected the aftereffects of President Truman's announcement that Russia had already exploded one. Some groups of subjects had been given previous information about the problems involved in constructing the bomb and the length of time required from the date of the first explosion until a sizable stockpile can be built up. The control group listened to a nonrelevant communication. Three months later, when the President made the announcement, the two groups reacted differently. Those who had the prior communication were much less inclined to believe that the Russians would soon have large numbers of A-bombs than those who had not been given this type of preparation (Table 9).

TABLE 9

EFFECT OF PREPARATORY COMMUNICATION ON REACTION TO NEWS EVENT

(From Janis, Lumsdaine, and Gladstone, 1952)

Percent of subjects believing it will take five years or more for the Soviet Union to have large numbers of atomic bombs.

	Precommunication	Immed. post-communication	Delayed (post event)
Control	60	67	18.5
Experimental	56	94	34.5
Difference	−4	+27	+16
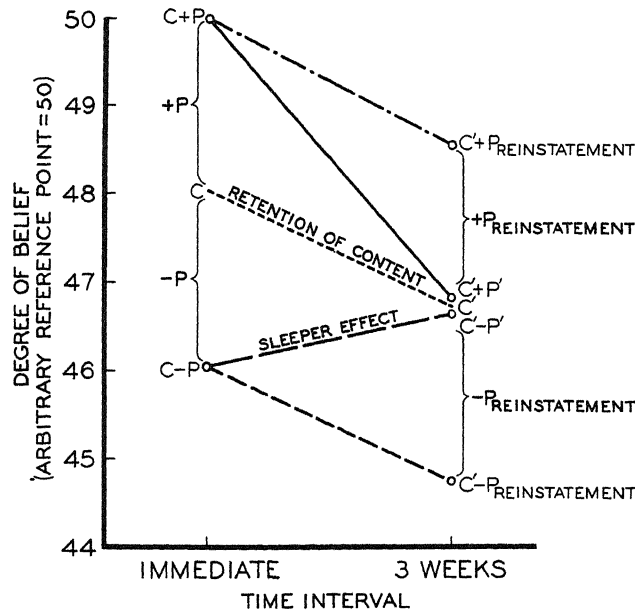
FIGURE 11.

Retention of overt behavior changes. It is possible that still other factors influence the extent to which changes in overt behavior induced by communication are maintained over time. There is, however, little information available concerning this problem. There are some suggestive data and interesting speculations in a paper by Lewin (1952) concerning the comparative retention of changes in behavior following discussions with group decision and following ordinary lectures. The results are based on the extent to which changes in mothers' feeding of their infants are maintained over varying time intervals. Some of the data, presented in Fig. 12, seem to indicate that the initial superiority of the group decision type of communication over the ordinary lecture is well maintained over time. Interesting research problems are suggested as to the critical conditions for these effects and the possible adaptation of the principles to mass communications.
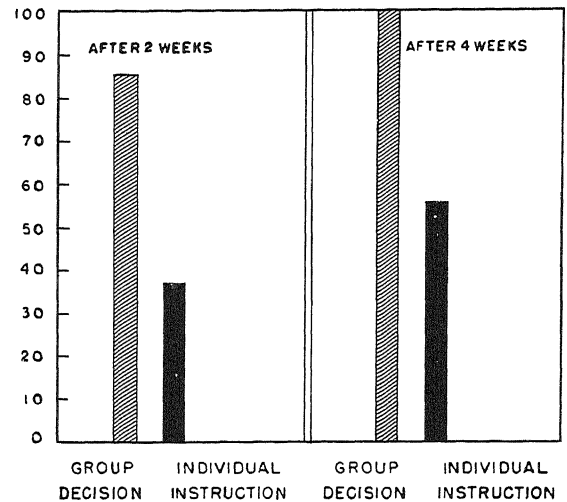
FIGURE 12.

RESEARCH GAPS

In each of the areas covered only a beginning has been made. Rich opportunities for further research abound What are some of the major gaps suggested by this survey?

First of all, there appears an underemphasis on the development of a theoretically sound *science* of communication. Much of the work to date has arisen out of immediate practical concerns. The principal task ahead is to integrate the extensive empirical data now available. This will require the development of a more highly developed theoretical formulation of the problems in this area, guided by systematic research. Illustrative of one aspect of theoretical development is the task of tying in present results with the basic principles of perception, concept formation, and verbal behavior. When communications present a number of conflicting data how does the individual integrate the material? One must understand the way that motivation affects how the material is perceived, the way the perception affects the retention of what is presented, and the way the individual absorbs and integrates the bits of information provided by the communication.

The stress on theory must not preclude study of applied phases of communication. Coupled with lack of theory there is also insufficient knowledge of how to apply basic research to practical problems. Much of the work which has been done with scientific purposes in mind has been done under highly artificial conditions. There is at present no true "communication engineering" to apply general principles to particular applications. Progress in this direction will require better methods for evaluating the "conditions" under which particular principles can be applied. Illustrative of the problem here is the integration of results obtained with "captive audiences" (which are excellent for experimental evaluations of the effects of communications on those who are exposed to them) with the research on the selective factors which influence the extent to which particular individuals and groups become exposed to various media of communication. Both types of data are relevant to determining the effectiveness of communications, but few studies are available where the two types of information are satisfactorily integrated.

A third gap is the lack of long-term, or longitudinal, studies. Most of the investigations have studied the effect of a particular communication over a relatively short period of time. The analyses of long-term effects have been left to the historian, while the social psychologist has remained critical of the procedures used. Difficult methodological problems exist in this area because of the constant interactions — in which effects become causes of subsequent effects. Thus attitudes may determine what information is acquired, information may then affect attitude, which in turn affects further acquisition of information, etc. What is needed for such analyses is carefully planned research

that will follow through the impact of various types of communications on attitude change over an extended period of time.

Finally, one of the limitations of present research is the extent to which it has been done within the framework of single disciplines Greatly needed are studies done by teams from different disciplines. Understanding of how the individual's attitude is influenced by the groups with which he is identified requires knowledge of both sociology and psychology. Similarly, knowledge of the role of mass media in influencing political behavior may best be increased through cooperative studies by psychologists, sociologists, and political scientists. The same considerations apply to the solution of various practical problems. Planning an information program by means of radio to reach diverse national groups, for example, requires understanding of small group relations (currently most studied by sociologists), in different cultures (studied by anthropologists), through the use of experimental procedures (most extensively employed by psychologists) (cf. Glock, 1952). Properly planned and executed, such studies are not only of value to the policymaker concerned with practical application, but will also help develop a better and more comprehensive scientific basis for communications research.

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CHAPTER 29

Industrial Social Psychology

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The application of social psychological concepts and techniques to industrial problems is relatively new. Twenty years ago there was very little interest on the part of the industrial psychologist in the variety of problems that come under the heading of social psychology Interest centered on such things as the identification of individual aptitudes and their predictive efficacy, the effects of rest pauses, lighting, and job methods on productivity, and the construction of scales for the evaluation of performance. Similarly, there was not much interest on the part of industry in the kind of concepts that social psychology had to offer. The difference between labor and management in class terms was clearly seen, but it did not seem to be a central problem of management. Management saw its job as being chiefly concerned with plans and decisions regarding finances, and with the supervision of production. With respect to psychological variables, management was interested in the identification of the most apt individuals, in devising wage payment plans and work methods which would provide optimum motivation, and, beyond that, leadership seemed mostly to involve giving clear directions about what was to be done.

The situation is quite different today. Social psychology has explored many of the areas of the industrial problem and has already made real advances toward understanding the situation Management, on the other hand, has become keenly aware of the kind of problems the social psychologist sees, and today it is a very unenlightened management that does not discuss group restrictions on production, communication problems within the group, and even conflicts of roles within the work group.

Within this comparatively brief period there has been a tremendous growth of interest — on the part both of the social scientist and the industrialist — in problems connected with the work group, and a corresponding growth of ideas and experiments concerning the nature and importance of groups at work. This chapter is aimed at describing the history of this change, and identifying and analyzing the principal concepts that have resulted from it.

HISTORY

Historically, the interest in the social organization of the factory can probably best be dated from the beginning, in 1927, of the famous research work of the Mayo group in the Hawthorne plant of the Western Electric Company and, more specifically, from the publication, by Roethlisberger and Dickson, of *Management and the Worker* (1939). They first dramatized the social problem of the work group; their statement of the problem initiated and gave shape to much of the current interest in employees' attitudes and group pressures on productivity; and they were among the first to initiate the idea of "the human problems of management." For many years their work stimulated and gave direction to subsequent research interests in the area.

Several other forces may be identified which have accounted for a good deal of the direction that these research interests have taken since then: (1) In the late 1930's Lewin was becoming interested in the dynamics of groups, and the early work of Lippitt and White on the climate of groups and of Bavelas on leadership as a group problem mark the beginning of a line of research and thinking that has continued to play a large part in social psychology in industry. (2) Moreno's work on sociometry and sociodrama (role playing) can be identified as a second line which has heavily influenced both the theoretical approaches and techniques in this area. (3) Finally, during the war and immediately following, there was a rapid rise in the tendency for industry and other institutions to ask for help with various internal problems, and for social scientists to provide it. This had the combined effect of leading many sociologists, anthropologists, and psychologists

out of narrow laboratory problems and toward a realization of the problems of people and of human organizations at work, while, at the same time, the social scientist's way of phrasing problems led members of industry to see social and human factors as important aspects of the work situation. In England, for example, this development, together with the special postwar pressures toward a restructuring of British industrial and social organizations, led to the development of the Tavistock Institute and, most importantly, to the psychologists' taking the role of a consultant to social organizations. In this country much the same thing happened, and in addition the social psychologist brought to the industrial problem a group of other psychological skills — techniques of attitude measurement, an experimental approach, sociometric measurements, and the like.

Starting with the Hawthorne experiments, and shaped in its development chiefly by these three lines — the work of Lewin and his followers, the work of Moreno and that stimulated by his ideas, and the consultative role of the social scientist — there has arisen a large body of theoretical and experimental work on problems centered around the work group.

THE HAWTHORNE STUDIES

The Hawthorne studies began in 1927, against a background of managerial interest in efficiency experts whose chief contributions were in terms of incentive plans, work simplification, speedups, and the like. The Harvard group began with the sober academic aim of finding "the relation between conditions of work and the incidence of fatigue and monotony among employees." Their original plan was to segregate five employees from an operating department and by varying such factors as temperature, humidity, hours of sleep, and the like, to see their effect on output. It was conceived to be a year's project. Instead, they were led into a maze of human problems acting as determinants of productivity — into attitudes, motives, interpersonal relations in groups, and strong forces from the group itself. Instead of a year's project, they stayed five years, and publications from their study continue to appear.

Their first experiment began with the introduction of unaccustomed rest pauses, asking the question, "Will the introduction of rest pauses reduce fatigue and monotony and hence increase output?" At the conclusion, considerable rise in productivity was evident, but the experimenters felt that "It was clear that two essentially different sorts of changes occurred . . . Those changes introduced by the investigators in the form of the experimental conditions (i.e., the rest pauses) . . . and a gradual change in the social interrelations among the operators themselves and between the operators and the supervisors. From the attempt to set the proper conditions for the experiment, there arose indirectly a change in human relations which came to be of great significance . . ." (Roethlisberger and Dickson, 1939, pp. 58-59).

The next variation consisted in shorter working days and weeks, and again an increase in output was evident. However, "a change in morale had been observed. No longer were the girls isolated individuals, working together only in the sense of actual physical proximity. They had become participating members of a group, with all the psychological and social implications peculiar to such a group" (p. 86). A detailed analysis of the wage incentive as a determinant of increased output was made, leading the investigators to conclude that the wage itself was not adequate to account for the change, and that, in fact, it was "only in connection with the interpersonal relations at work . . . that its [the wages'] effect on output could be determined" (p. 160).

At each step in the attempt to investigate the effects of external conditions, the research was forced back to a consideration of personal factors and group forces. This gradual elimination of mechanical peripheral explanations forced the investigators more and more into two kinds of interest. the first was an interest in the operators as individuals, with special reference to their attitudes and motives, the second was to force the investigators to pay more and more attention to the role of the work group, and to institute a detailed study of the social organization of the factory.

Not only the reality of the group, but the strength of the group became apparent. The group operated quickly and effectively both to protect itself from internal violations of its own patterns, and also to protect itself from outside. The group effectively restricted the output of individuals. Acting in fear of real or fancied consequences of a high production rate, the group put social pressures (ridicule, ostracism, and the like) on those who exceeded the implicit group rate of production. Indeed, the operation of this restriction was so careful that there was considerable evidence not only of restriction of output, but of false production records which underestimated actual output, in order to keep the reported production (and hence pay) in line with the group standard.

These factors and these findings led Roethlis-

berger and Dickson (as well as the others of the Harvard group — Mayo, Whitehead, Homans, *et al.*) to put increasing attention on the social organization of the work group, on the implied problem of the relation of a supervisor to his subordinates, on the communication patterns within the group, on the motives and the attitudes of the workers, and, in general, on the complex of problems under the heading of "the social organization of the factory."

After the publication of these researches, thinking about industrial problems was radically and irrevocably changed. It was no longer possible to see decrements in productivity simply as a function of changes in illumination, physical fatigue, and the like. It was no longer possible to look for an explanation of turnover simply in terms of an economic man maximizing dollar income. The role of the leader began to shift from one who directed work to one who enlisted cooperation. The incentive to work could no longer be seen as simple and unitary, but rather as infinitely varied, complex, and changing. The new view opened the way for and demanded more research and new conceptualizations to handle new problems.

LEWIN

The work of the Lewinians on group problems was also beginning to come out at about this time, and it soon had an impact on industrial social psychology. Lewinian theory and the basic experiments which document it are thoroughly detailed elsewhere in this volume (Chapter 5), and will not be repeated here. However, certain aspects of the approach have had special application to industrial problems. The early Lippitt and White studies on the effects of experimentally created social climates in groups pointed to the possibility of defining systematically the general character of the group and, more importantly, to the implications that the leader's behavior had for the members' behavior and for the productivity of the group. The experimental demonstration that the productivity of the group varied as a function of the leader's role extended and gave structure to the Hawthorne study's findings regarding group determinants of productivity, and helped to make it impossible to consider the leader's role in the industrial situation to be simply one of saying clearly what had to be done. On the theoretical side, the Lewinian approach provided a theory by which, for instance, the cohesiveness of groups could be handled as a variable, and made it possible to deal with some of the instantaneous dynamics of motivation and group structure. In both these lines — in the experimental suggestion of new possibilities in the situation and in the provision of new theoretical tools, Lewinian field theory laid the groundwork for future developments in considering groups at work.

In addition to the general Lewinian point of view, one particular section (Lewin, 1947) deserves special treatment because of its close connection with industrial problems. Just before his death, Lewin was developing the concept of quasi-stationary equilibria as a theoretical formulation of certain kinds of behavior problems. These notions are set forth in detail elsewhere in this volume (cf. Chapter 5) but they are briefly reviewed here with special reference to the problems at hand, as some of the experiments flowing from them are integral parts of the investigation of social psychology in industry.

The behavior of a group, Lewin suggests, must be viewed in terms of its position in a field of forces, and what happens depends upon the distribution of the forces throughout the field. Any particular behavior segment which occurs can be analyzed as the result of a balance of forces such that the force in the direction of more of the particular behavior exactly balances the force in the direction of less. Further, when behavior deviates from its initial level it moves in a force field where the forces are unequal (unless a new equilibrium is established) in such a way that the stronger force tends to return the behavior toward the initial level. The strength of the force toward the initial level increases according to a gradient whose slope is a characteristic of the particular situation. The steepness of this gradient of force will limit the amount of change in behavior as a result of unit force, and will minimize the individual differences within the group.

This very brief statement of the central notions of quasi-stationary equilibrium can hardly do more than suggest the possibilities that the concepts have for industrial social psychology. However, this statement of the problem fits many typical industrial group phenomena, such as levels of productivity, levels of turnover, union activity, effects of training, and even consumer behavior. Unfortunately, Lewin did not live long enough to spell out in detail the kinds of implications he saw for his concepts, but they have already proved stimulating to research in the field, and their application has hardly begun.

MORENO

Moreno's sociometry and psychodrama both added to the currents in the field. Sociometric

analysis is essentially an attempt to denote and measure the network of relations between individuals within a group. Instead of taking a group as an entity, or as representing a single force (as, for instance, the "democratic" climate of the Lippitt and White experiments), it tries to get at the bonds between members, and to provide a structural map of the group in terms of these bonds. The idea of sociometry advanced the problem indicated by Roethlisberger and Dickson when they spoke of the social organization of the factory, in that it allowed the investigator to specify the kinds of relations within the structure, to quantify them to some extent, and to permit a limited comparison of one grouping with another. In many ways, the more recent interaction analysts are directly in the Moreno tradition in their attempts to refine still further the nature of the bonds between members by defining them in terms of interaction categories Paradoxically, one of the effects of Moreno's concept is that it leads the study of group processes back to an individual basis. Instead of viewing the group sociologically from the outside, as if it were an entity, Moreno's technique leads the investigator to see the group from the point of view of the member of the group. This leads inevitably to a consideration of the way in which the individual sees the group and, also, because the picture of the group is one of relationships between individuals, to the study of roles in groups and of patterns of interactions between members. All of these things — the possibility of mapping group relations, the emphasis on the individuals' view of the group, the idea of roles in relationships, and of an analysis of interaction patterns between group members — were seeds of current developments in industrial social psychology.

Psychodrama, although it was primarily a therapeutic tool in Moreno's thinking, must be listed as one of the contributors to the direction of development in the field, both because of the emphasis on roles in relationships which is implicit in it, and because of the very great frequency with which one form or another of role playing has penetrated industrial training techniques through the medium of the social psychologist. In theoretical terms its contribution has perhaps been slight, but in terms of the actions of members of industry it has probably had more effect than any other single technique of the social psychologist except the questionnaire.

THE CONSULTANT'S ROLE

It is somewhat harder to identify specific theoretical developments that arose as a result of the fact that social psychologists engaged in widespread consultative relationships to industrial organizations, but the influence is nevertheless present. During the war psychologists worked with problems of attitude and morale as they influence productivity, with the problems of the purchase and consumption of consumer goods and savings bonds, with communication and propaganda problems, as well as many others. Viewing them as practical problems to be met in the national interest, psychologists for the first time brought the whole force of their theoretical tools and technical skills to bear on the psychological problems connected with industry and government. Three things may be said about this experience: the social scientists were stimulated to extend their concepts to handle the kind of extra-laboratory problems they met; they found a host of new situations that were amenable to the kind of techniques of investigation which had already been developed (e.g., the public opinion questionnaire, role playing, etc.); and finally, much of this experience was consolidated and institutionalized in the establishment of such organizations as the Tavistock Institute in England and the Research Center for Group Dynamics in this country.

RESEARCH AND CONCEPTUALIZATION

The development of research and theory regarding group structure in industry has not been programmatic or orderly. Progress has been made on a catch-as-catch-can basis where opportunities to work were presented by industry or where psychological work in other areas led directly into industrial problems. To get a coherent picture of the social psychological problems in industry, we must first outline the current status of work under a number of separate headings.

THE PSYCHOLOGICAL DESCRIPTION OF THE JOB

One of the first things that is demanded is a redefinition of the work situation in psychological, rather than institutional and technical, terms. The social psychologist cannot work on industrial problems; he must work on social psychological problems. Although this seems to be a truism and unnecessary to state, it probably presents the most difficult point in the application of a psychological approach to any institutional problem. The Hawthorne studies

began by trying to deal with questions phrased in the terms in which industry saw the problem· in terms of productivity on the one hand, and such factors as rate of flow of materials, wage payment plans, and the like on the other. They were soon led away from these issues and into a group of properly psychological problems which involved a reorganization of their study because they had not originally prepared to handle group and individual factors. The problems of an industrial organization, as is the case in any institution, embody many social psychological stresses and strains, but they express themselves through the medium of dimensions relevant to the institution. To handle the psychological problems it is first necessary to translate the problem from institutional to psychological terms; coordinating definitions must be found to lead us from the industrial phenomena to the psychological concepts.

The problem has tended to be posed by industry in its own terms in terms of absenteeism and turnover, of loss of productivity, of poor communication, and the like. Each step that has been taken into the social problems of the factory, however, has underlined the need for new terms in which to state the problems. For instance, we frequently find that a worker selected for advance to a foreman refuses the promotion, apparently, partly because of the kinds of group membership he would have to forego in the move. The Hawthorne studies pointed out, and it is now common practice to find, that wage-payment plans based on additional pay for additional production have a limited effectiveness because the group sets a rate which is "proper" and punishes members who exceed it. Status cleavages in the factory act to inhibit communication, to upset the technical job analysis by making one job more attractive than another for reasons which do not appear directly in the work. Problems such as these and a host of others impress the need for a psychological description of the job which will allow us to state the problem in the same kinds of terms in which it is to be answered — to state the problem in a way which will allow for the cohesive and divisive forces within the work group, for the attitude-molding effect of the group's point of view, and for the role which the individual and the particular job have in the structure. To pave the way for specific research questions, at the outset the problem demands the kind of detailed observational anecdotal analysis that the work of Fabre and Lubbock provided for studies of animal behavior.

Whyte's *Human Relations in the Restaurant Industry* (1948), a classic in detail and insight, is a good example of the anecdotal function at this stage. In analyzing the kinds of social problems in this particular industry, he points, for instance, to the implications of an increase in the size of the organization for the roles and functions of the leader. At its smallest stage the boss has all functions — he takes orders, cooks the food, serves, and handles the money, he combines customer relations, production, service, and control in one. As he succeeds and expands, he divides the functions, and the complexity of the group grows. The group is usually increased along lines of specialization of function which progressively narrow the function of the superior until he finally is left with the over-all task of planning and supervision, but has added all the problems of communication and harmonious operation within his group of subordinates. Not only does the specialization of function change the character of the work group, but the leader is beset by a cluster of problems apart from the nature of the task itself. Instead of doing things himself he must accomplish his goal through others Instead of being able to rely on face-to-face techniques for dealing with his group he must have more and more formality in the organization, and cope with the attendant difficulties. As the group grows in age as well as size, new problems are created. The older member has special rights and privileges as a result of seniority apart from other accomplishments, and a source of cleavage within the group may arise in this area. In his approach to the over-all organizational problem, Whyte identifies a group of social psychological problems that are common to almost all industrial situations. Their isolation and description is a necessary first step to a final understanding.

At the level of the work group, Whyte traces the impact of extra-job forces on the social organization For instance, it is common, as the restaurant grows, to introduce an additional function between the waitress and the cook to make the communication and provision more efficient. A counterman who takes orders intervenes between the supply and demand. By nature he is in a peculiar position, since the waitress can be expected to put pressure on him to produce her orders, while the cook will resist his pressures, since the counterman has no means to make them effective. Added to this is the fact that the waitresses are typically women while the ordermen are men, and consequently the normal societal sex roles are reversed, with the waitress playing the active aggressive demanding role, while the male has

a passive acquiescent role with relatively little control over the situation A similar external force shapes the social relationships on the job when we see that the status of functions in a very large restaurant kitchen is heavily influenced by the social status of the products with which the individual deals. Thus, the person who handles beans does not handle salad; the person who handles cauliflower and carrots does not handle such high-class articles as olives and parsley, finally, the social stigmata of the potato peeler are faithfully reproduced, the peeler is not allowed to slice the potatoes for frying!

Within the job itself, Whyte spells out in detail such aspects as the supportive role of the waitress' group, the relation between her geographical station in the dining room and her status in the group, and the special characteristics of her role *vis-à-vis* her customers.

A similar approach to a very different aspect of the industrial problem is to be found in Lewin's (1948) report on *The Solution of a Chronic Conflict in Industry* Here he tries to give the role perceptions that led to the conflict, the modifications which an outsider was able to effect in these perceptions as well as the outsider's own role, and the final new roles on which the more harmonious relation was built.

In a sense, neither of these studies leads us closer to a final understanding of social problems at work. Neither of them generates the kind of concepts that are necessary for exhaustive theory building or for precise experimentation, but each illustrates the step of a detailed identification of the kinds of psychological factors that are associated with interactions between people on the job, and each serves to advance the understanding of the problem toward a better theoretical and experimental statement.

Similar analyses of jobs are beginning to appear with somewhat more developed theoretical statements. King (1947, 1948) reports working with a training problem concerned with a very delicate operation of finishing in the hosiery industry in England. The practical task was primarily one of providing sufficient operators with a high level of skill at a difficult job to meet a very rapidly expanding postwar demand. Interaction problems appeared where it was necessary, in early stages, for the trainer to act as the trainee's "other hand," doing part of the work for her, and again at the stage where the successful trainee must move from the isolated training group into an established production group, with attendant rejection and loss of productivity. It appeared possible, to some extent, to handle these interactive problems both theoretically and in action, in terms of a systematic attempt to work on the operator's role perception of herself with respect to the task and with respect to the group. However, as is the case in many of the formulations dependent upon the concept of roles in industrial organizations, it seems at this time to be more of a restatement (though sometimes an effective one in practice) than an explanation because of the inadequate conceptualization of the notion of roles.

Trist and Bamforth (1951) report experiences with changes in coal-mining techniques occasioned by engineering progress which presented similar social problems. In the situation described, coal traditionally had been mined by groups of two doing a complete job (i.e., loosening the coal, collecting it, and loading it out of the mine). It subsequently became more efficient, however, to use large groups (40-50) and specialized shifts, separating the functions in time and forcing greater specialization on the workers Many malfunctions occurred in the new system (absenteeism, aggression, restriction of output, etc.) which seemed to be due largely to a series of social psychological problems in the organization. The large group at work, under the special underground conditions, deprived the individual of his role in a small primary group, and reduced the flexibility of the group in the face of changing environmental facts. The specialization of shift functions engendered rivalry and ill-feeling between the shifts, which had no face-to-face contact with one another, as opposed to the previous system in which a pair of men working together did all the jobs now divided among the shifts. Because the work of each shift depended on the work of the others, this division growing between them was particularly disruptive. In attempting to solve the practical problem, the experimenters analyzed the problem in terms of the tensions that originated in the group structure, and took remedial action by: (1) building small-group organizations within the shifts, (2) trying to cut down isolation through training each member in more than one task to increase role flexibility, and (3) modifying the total group structure so that the authority patterns fitted the demands of the work situation more closely.

By far the most sophisticated theoretical treatment of group problems in this area is that provided by Coch and French (1948). In dealing with restraining problems occurring in the textile industry as a result of methods changes, the experimenters observed that the relearning

period for operators transferred to a new method was significantly longer than the learning period for a new operator on the same job. This inhibition occurred in spite of the fact that the operators did not complain about wanting to do the job in the old way, and time and motion studies did not show false moves associated with the old technique, as might be expected in a straightforward negative transfer situation. Further, both the operators who were highly skilled before the methods change and those less skilled showed equal inhibition after the change, suggesting that the causal factor might not be associated directly with the skill at the old job. In attempting to explain the phenomenon, Coch and French applied the Lewinian concepts of quasi-stationary equilibria (mentioned above) in a very illuminating manner. It is suggested that skill is not an important variable, but that the inhibition of relearning is chiefly associated with a resentment against management for transferring the workers, a loss of hope of ever accomplishing the standard rate, and, most importantly, by a group-set standard which was maximally effective in highly cohesive groups

In line with this approach the authors point out that independent evidence indicates that operators before transfer had accepted management's quota of 60 units per hour, and this was the group's level of aspiration. After transfer the group presumably carried over this goal, represented in terms of a force in the direction of a level of production of 60. The closer the actual production reached to 60, the stronger the force — accelerating according to a steep gradient. The force in the direction of a standard of 60 was opposed by a restraining force associated with the difficulty of the job and, unit increases at higher levels being harder than at lower levels, this force is also represented by an opposite steep gradient. An equilibrium under relatively high tension of this kind is hypothesized to produce frustration and, in the work situation described, frustration is considered to lead to aggression and turnover (escape from the field). An analysis of the turnover in the factory showed markedly different curves for the changed and unchanged groups, not only in rate but in the shape of the curve. The unchanged group reached a maximum rate of turnover as it approached the standard — where the strength of the opposing forces mentioned above would be maximized. The transfer group, however, had not only a much higher average rate of turnover, but a bimodal distribution, with a peak immediately after transfer and a still higher peak as their performance approached the standard performance. After passing the standard (the group norm) both groups showed a marked decrease in turnover The marked difference in the average rates for the two groups and the dissimilarities in the shapes of the two curves are hypothesized to appear as a function of differential resentment of management as a result of the transfer and of different degrees of effectiveness in making the resentment felt as a function of the cohesiveness of the group. This last phenomenon will be discussed in a later section of this chapter, but for the present this experiment will serve as an unusually advanced application of social psychological theory to the problems of industry, and a relatively sophisticated example of the translation of the technical problems of management into terms suitable for psychological research.

McGregor (1944, 1948) has approached the psychological restatement of industrial problems somewhat differently. In dealing with two allied problems, the organizational problem of the relation between line and staff and the nature of leadership, he has handled the psychological issues in motivational and developmental terms.

> In industrial parlance, the "line" refers to that part of the organization directly responsible for achieving the productive goal of the organization. In terms of the organization chart, it includes everyone on a direct line from the head to the production workers. The function of a member of the line is to work through the people below him to accomplish production In contrast, the "staff" is not directly connected with production on the organization chart. In function, the staff has a supportive advisory role with respect to some part of the line (e g, the control function of the accounting department, the supply function of personnel, the service function of a maintenance section, etc.). The staff does not work through its subordinates primarily, but is mainly aimed at helping the line. This distinction is widely held and almost always represented in the organization of a factory. In fact, its operation seldom appears in anything like the pure form described here.

McGregor uses three central concepts in his analysis: (1) the balance between dependence and independence and the development of needs, (2) the law of effect and the modification of behavior, and (3) the role of the leader in an industrial organization.

McGregor points to the fact that a human infant is born with needs to be satisfied and without the means to satisfy them; he is consequently dependent on an agent for their satisfaction. In this situation he tends at once

to relax in the comfort of dependence and to develop independence in order to counteract the implicit threat to need-satisfaction of being dependent. This situation, McGregor suggests, has more than an analogical relation to the worker's position in an industrial hierarchy. The superior controls most of the means to need-satisfaction, and the worker is consequently in a similar dependent position. Just as the parent's job is to develop a healthy balance between dependence and independence, the superior's job is to make the dependence as little crippling as possible, at the same time to develop an active independence. From this original situation, McGregor develops a concept of a hierarchy of needs somewhat similar to that elaborated by Maslow (1946). The leader's task in the organization is to create conditions such that his subordinates will help him Consequently, he must shape the situation in such a way that it allows for a balance of dependence and independence, that it provides expanding opportunities for higher order need-satisfactions, and so that he is able to direct the behavior of his subordinates by making sure that the behavior he desires leads them to reward and that other behavior does not.

An approach such as this one has several important points for social psychology in industry. It provides a meaningful psychological place for the superior in the industrial hierarchy, it draws its conceptualizations of organizational structure out of a motivational theory, and it allows a place for the operation of such group and individual factors as nonfinancial incentives at work. It has the characteristic of a single systematic statement which attempts to subsume the major phenomena of psychological problems at work It does not lay as heavy a stress on purely group problems as the Lewinian approach exemplified in the Coch and French experiments mentioned above, nor does it make explicit allowance for such phenomenological matters as role perceptions and individual views of the job. However, a motivational analysis such as this one provides an important facet of the theoretical problems of an industrial organization.

There are two other areas in the industrial situation where a psychological redescription of the problem is badly needed, and where only a beginning has been made: labor management relations and the social meaning of the union. With respect to the union organization, Golden and Ruttenberg (1942) have pointed to the importance of group membership in providing belongingness and security, and the fact that the union provides a meaningful role in a primary group, making up a deficiency which the authors feel is often absent in the plant. Chalfen (1947) has expanded this theoretical statement somewhat along the same lines, and Kyllonen (1951) has reported preliminary empirical data on the role that membership in the union plays in the lives of the members. The important variables in the problem of the simultaneous existence of a union group and a plant group with different statements of purpose have not been detailed sufficiently, however. In the case of labor-management relations, likewise, we have an important social psychological problem which arises from the nature of the situation and which has not been adequately handled conceptually or experimentally Garfield and Whyte (1950a,b,c, 1951) have provided a first description of the relationship in social terms, and Jaques (1952) has described the relation between groups within a particular factory in some detail. No one has set down in sufficient detail, however, the kinds of social psychological problems that arise from the relationship of two groups with elements of conflict, from the overlapping identifications involved, from the problems of roles and role perceptions involved, from the meaning of role conflicts in the labor-management relation.

Social psychologists must work on social psychological problems; they cannot work on industrial problems. One of the first tasks is to find a systematic set of coordinating definitions which will allow us to restate the problems of an industrial organization into such a form that they can be handled in psychological theory. We have a beginning of this task at the level of the work group, and later sections of this chapter will show some advance in the early stages of the organization itself. McGregor's motivational analysis of the over-all organization problem opens the way for further developments, but the theoretical statement of the entire field needs a great deal more structure in the areas of organization, particularly within the union, and in the relation between labor and management.

INTERACTION AND COMMUNICATION

These two problems stem immediately from a realization of the complex social structure of the industrial organization. An awareness of the activities and power of the group — in restricting production, for instance, and in protecting its members — and of the relations between groups, leads the investigator to demand a more detailed analysis of the way in which groups operate within themselves: an

analysis of the process of interaction. As the groups and subgroups become large, and as the relations between and within them become complex, there is an increasing pressure for an understanding of the process of communications and the factors in group structure which facilitate or limit it Both of these areas have had some theoretical and experimental development outside of their application to industrial situations, and both of them have obvious and immediate implications for the problems of groups at work, but in neither case has the application been made sufficiently detailed or explicit.

The interactionists are the spiritual descendants of the tradition of sociometry. Essentially the question they ask is one which goes beyond the simple analysis of the kinds of bonds that relate people within a group and attempts to specify in more detail the kinds of roles that members of the group play with respect to one another, the kinds of need-satisfaction they provide one another, and the techniques of behavior which characterize their interaction. Both the simple sociometric analysis originated by Moreno and its implications in interaction analysis techniques (cf. Bales, 1950) can be seen in preliminary studies of industrial applications. In some studies there has been a suggestion that grouping workers according to sociometric choices increased production and efficient group activity, and in others it has been pointed out that the highly popular members of the group are low producers and that equally strong friendship groups may vary considerably in productivity. It seems clear that the kind of relations within a group is an important variable, but that it is one that is complexly mediated and must be seen in its relation to a group of other factors in order to understand its operation. In a situation where there is a large number of both positive and negative choices in a work group, the resulting dissension may act to restrict the group's effectiveness, on the other hand, if there is a group-set production quota, a high degree of positive choices within the group may only make the restriction more effective. To understand fully the action of such structural factors, it is necessary to project them against a background of the purpose of the group and the present aims of the group in a particular context.

The techniques of interaction analysis provide an opportunity to specify in more detail the kinds of relations that exist within the group, and have obvious implications for such problems, for instance, as the relation between labor and management representatives in formal negotiations, or for the study of the relation between foremen and workers, or between representatives and the operating members of the line organization. A few preliminary studies in these areas are going on, although there is little at the stage of publication. It seems likely that this line of investigation will eventually considerably advance the understanding of social psychological problems in industry.

The field of communication in its application to industrial situations is in a similar state. Outside of its application to industry, there is a large body of theoretical development, ranging from the work of the "information theorists" (Miller, 1951) through the problem of mass media in communication (Cartwright, 1948) to specific theories of communication networks in groups (Bavelas, 1948).

In terms of social psychological problems, three questions might be asked: (1) considering the societal implications of the groups involved, how can they best communicate regarding their aims and practices in order to work well together within the community? Labor, management, and the community form three relatively distinct groups in this respect, each with obligations to the others, and each with less than adequate understanding of the other's objectives and actions Management and labor have faced the problem increasingly in recent years, although without either notable success in practice or any real understanding of the process, and the situation provides a fertile field for the social psychologist working in the area of mass communication. (2) What kind of communications networks and techniques will meet the high demands for speed, accuracy, and bulk of transmission that are placed by the complex nature of large industrial organizations and the highly technological character of its activity? (3) Reversing the question asked immediately above, in what sense is the particular pattern of communication which does develop within a group an index of the nature of its organization or a diagnostic sign of its potential malfunctioning? Laboratory work on the periphery of an application to industrial problems suggests the promise and difficulties in these areas. For instance, it may well be (Bavelas and Barrett, 1951) that it is impossible to maximize efficiency of communication and morale at once, and that in many cases we must sacrifice maxima to achieve a balanced operation. Similarly, such studies as Kelley's (1951) suggest that the nature of the organizational structure traditionally required within industry may have deleterious implications for the communications process

involved, and that here again we may eventually need to seek a compromise of maxima

In both of these areas — interaction analysis and communications — the implications for industrial application are clear. Theoretical work has developed relatively far and laboratory experiments provide exciting and suggestive examples of the promise which the concepts have for industrial problems. However, to date, little progress has been made in their actual application.

PARTICIPATION

The idea of participation in activities within the organization has been one of the most widely used, and one of the most successful, concepts in industrial social psychology. Stemming from the kind of theoretical view outlined by Allport (1945) it has found expression in various media. In practice it has meant taking steps to help the group member feel that he is, in fact, a member of the group and providing him with an active role to play in it, providing participation in decisions, and making possible an expanding area of egoistic need-satisfactions in the manner mentioned by McGregor above.

Coch and French (1948) in the research report mentioned above, provide one of the clearest experimental examples of the action of participation in industry. It will be recalled that the situation in which they worked was one in which relearning after methods changes was harder than initial learning at the same method for new operators, and that the experimenters expressed this problem in terms of Lewinian quasi-stationary equilibria, hypothesizing that the transfer group represents a balance of forces at a lower level. This lower level is accounted for in terms of a balance of six forces in the situation. (The experimenters realize that this is not an exhaustive list of the forces playing on the level of production, but select these six as being identifiable and manageable in the situation.) Three forces act to restrain production: (1) a force corresponding to the difficulty of the job, (2) a force associated with the avoidance of strain, and (3) a force arising from the group standard restricting production at a given level below the company's quota. Each of these forces is represented as a gradient, increasing in strength above the level of production. They are opposed by three forces acting to increase productivity: (1) the force corresponding to the goal of standard production (company's quota), (2) a force arising from pressures from management through supervision, and (3) a force corresponding to a group standard of competition The main inhibition to higher production in this situation is the force associated with the more or less explicit group agreement to restrict production to a level below management's standard, perhaps partly in resentment of the fact of the transfer and partly in the hope of having the standard changed.

Working on the basis of this hypothesis concerning the source of inhibition, the operators who were to be changed were divided into three groups. The control group was changed in the standard manner. That is, the production department of the factory modified the job and set a new rate. A group meeting was held in which everyone was told the change was necessary and the new rate was thoroughly explained. Experimental group I was changed by the addition of a participation by representatives of the operators in the change in method and in establishing the new rate. The third change was applied to experimental groups II and III, in which there were relatively small groups, and where it was possible to involve everyone in the kind of participation which in experimental group I was reserved for representatives of the operators. After this process, all four groups (i.e., the control group and the three experimental groups) underwent similar methods changes.

The results showed that the control group demonstrated the customary inhibition after transfer, while experimental groups II and III — with the fullest participation — transferred very much more readily, quickly regaining their old level and even surpassing it. Experimental group I was intermediate between these two. These results are interpreted to mean that because of the participation afforded the experimental groups the force associated with a group-set level below management's quota is diminished, as is the resentment of management, and with a reduction in the restraining force, the forces acting to raise production caused the level to rise until, as a result of the gradient in the restraining forces, a new equilibrium was reached.

It seems clear from this study that the participation of the experimental groups in the decisions affecting the change was the primary factor in reducing the inhibitory results ordinarily associated with the change. It seems likely that the authors' analysis of the forces restraining production and their description in terms of a quasi-stationary equilibrium is an effective theoretical model to hande such phenomena. It is far from clear, however, why the participation is so effective, or in what kind of psychological explanatory terms it should be

handled. At the level of practice there is a good deal of evidence that participation is the most powerful technique available for modifying the behavior of a group; theoretical statements, at the present time, seem little more than redescriptions without important further implications. Because of its central character as a technique for producing change, it seems vitally necessary to spell out in detail the systematic meaning of the mechanisms by which participation is effective

The very great power of participation appears in still another area of industrial innovation: as one of the panaceas for resolving labor-management problems, in a host of plans ranging from so-called "consultative management" to profit-sharing plans. Some of these plans involve various kinds of financial return to the employees — a bonus on operations, a share in cost reduction, or a share in the profit. In most cases the financial incentive associated with this aspect of the plan has been thought to be the major mover in effecting the change. All of the plans, however, involve some type of participation in the form of labor-management committees to deal with the problems of the organization, and it seems quite likely in the operation of many of them that the increases in productivity which result can be better explained in terms of the psychological effects of participation than through the increase in motivation resulting from an additional financial incentive. As a result of the participation the worker sees himself and his job in a different light. Not only do some of the group restrictions on productivity disappear, but in the joint effort of the participative plan there is greater incentive for the worker to suggest improvements and modifications The participating groups themselves greatly improve the communications within the organization, and management is led to do its own job better because of this, while the hourly paid workers often achieve a more realistic picture of the importance of various problems and practices within the plant. Finally, the familiar phenomenon of the acceptability of one's own suggestion occurs, and ideas and plans which management could not hope to institute are now possible and workable as they arise partly from the work group itself Because of the great effectiveness of such mechanisms as these, and because participation plans have worked when there was no profit to share, it seems quite likely that the explanation for their success must be found in a more detailed understanding of the psychology of participation in social groups rather than in a simple economic motivational theory in terms of maximization of gain (Schultz, 1949).

ROLES AND ROLE PLAYING

Throughout the entire area of social psychological problems in industry, group structure and the relations between members of groups play a paramount role, and almost all of the fields of research that are mentioned here are at least tangentially related to this problem Whyte's (1948) discussion of the restaurant industry (mentioned above) and other work of his leans heavily on concepts of status and roles and on the forces holding a group together; the structure of the group is a central variable in communications problems, and status barriers are probably the most frequent inhibitor of the flow of communication. In dealing with general human problems in industry, Bakke (1947) works chiefly on the basis of a combination of motivational concepts and ideas about group structure, the formal labor-management relations of bargaining can hardly be described without reference to the problems. To some extent, attempts have been made to handle the material of group structure in a coherent systematic way, but at present these formulations do not seem to cover adequately the kind of material that appears in the industrial situation.

Role theory (see Chapter 6) deals with many of the problems, but makes little room for such explicit issues as the change in role brought about by participation and its great effect on the behavior of a group, or such things as the role of the foreman with respect to his group — a factor which studies of employee attitudes show to be extremely important The group dynamics school, on the other hand, organizes many of the facts around a theoretical position arising out of Lewinian concepts, and they make room for such factors as position in the group, cohesiveness of the group, and the like. Indeed, the research of Coch and French (1948) on participation stems directly from Lewinian notions of cohesiveness and quasi-stationary equilibria, but the theory does not provide an explicit detailing of the causal efficacy of the participation which was one of the main variables in the experiment. Throughout industrial social psychology — in the establishment of group standards regarding production and other forms of behavior, and in the various areas referred to — the problems of the structure of the group and the position of the individual in the group are continually posed. Eventually it may be possible to organize the whole field around these

as central concepts At present the systematic structures available do not seem adequate for the job.

Three areas of research stand out under this heading: (1) the problem of leadership and the leader's role in relation to his subordinates, (2) the relation between the role perceptions of the leader and his subordinates and the morale and productivity of the work group, and (3) the increasing use of role playing as a technique for sharpening and modifying role perceptions in the industrial situation. Each of these areas will be briefly described.

THE ROLE OF THE LEADER

Since the end of World War II, there have been a host of studies of leadership. Many of them have been sponsored by various branches of the armed services, and to some extent they show the marks of that basic interest. In relatively few cases have they been directly related to the problems of leadership in the industrial situation. (Cf. Chapter 24 for a detailed statement regarding research on leadership.) Carter and his group have worked on the problems of criteria of leadership and the prediction of leaders; Shartle and the Ohio State group have worked on the nature of leadership. Cattell has developed an entirely new approach to the definition of leadership, deriving it from a factor type theory and method Throughout, the leader is largely defined in terms arising out of characteristics of the organization. Indeed, probably the most striking result of the work on leadership, in terms of its impact on industry, has been the uniform tendency to consider leadership not as something that resides in the individual, but rather as a characteristic of a role in the group, defined, in particular situations, by attributes of the group structure. Industrial tradition has long clung to an implicit faith in the charismatic leader, and the industrial culture is replete with anecdotal biographies of the attributes of great men. This view of the leader has importantly structured the leader's role perceptions of himself in industry, and the perceptions of his followers, it has influenced the developing of hierarchical structures in industrial organizations and, to a certain extent, has become self-validating thereby; it has for a long time guided the selection of industrial executives, and thus tended to perpetuate itself. As social psychological research and theory shift to a situational definition of leadership in the tradition of *The Admirable Crichton,* it begins to influence the beliefs and practices of members of management. This process has not proceeded far at present, but it offers an unusual opportunity to observe the influence of a radical shift in role perceptions on institutional behavior.

Shartle (1950) directed a study of leaders in business in which the attempt was made to identify the activities of individuals who were in the leading positions in hierarchies It is perhaps particularly interesting for social psychological research to notice that Shartle found a kind of phenomenological method most useful, in which the leaders supplied — through the medium of questionnaires and interviews — descriptions of the way in which they saw their jobs and activities and status, and the leader's staff provided the same kinds of phenomenological data regarding their perception of their boss In general, these studies elicited stereotypical perceptions of the ideal leader and similar (though less uniform) perceptions of the ideal group of followers The leader's self-description was seen to agree more closely with his follower's description of the ideal leader than did his actions, and his actions were related closely to the leader's own perception of status relations in the community at large The leader's job (as distinct from his activities) seemed to factor into three dimensions: maintaining group membership, facilitating group interaction, and objective attainment (i.e., productivity).

The development of these kinds of data from an analysis of leadership situations seems an excellent example of the kind of thing MacLeod (1947) describes when he speaks of the need to avoid the bias of an institutional sociological definition of the parameters of an organization, and to adopt an "attitude of disciplined naivete" with respect to the phenomena that occur In the area of leadership, particularly, we have been encumbered by a set of cultural notions concerning the leader's role and a rigid view of the leader in his hierarchical position to such an extent that it has been difficult to formulate the problem of leadership in terms of group structure and group action. This study, and some of those reported immediately below, mark a beginning of the breaking away from an institutional view and the provision of data on which a description and analysis of leadership can be built.

The so-called "leaderless-group technique" for the selection of leaders (Fraser, 1949, Symonds, 1947, Taft, 1948) affords another example of the definition of the leader in terms of a functional role. Here, in an attempt to assess leadership qualities, the candidates are put in an unstructured situation and observed

in action as they assume roles and structure the group around them. The emphasis is on the patterned dynamics of interaction, rather than on discrete independent personality characteristics of leadership.

The relationship between a leader's position in the group and the productivity of that group has been best investigated in a series of studies of productivity, supervision, and morale carried out by the Survey Research Center at the University of Michigan (Katz, *et al*, 1951). In working with the Prudential Life Insurance Company in an office situation, and among section gangs of the C & O Railroad, the research team was able to get objective measures of productivity and to investigate, with survey techniques, the social psychological correlates of high and low criterion performance. It is perhaps of primary importance to notice that in both cases it was found that morale was not positively related to high performance. It is quite clear in their studies that high producers are not better satisfied with their jobs or with company policies The reason for their success must be elsewhere. For some reason there has been a tendency, without supporting evidence, for social psychologists to assume that high morale and high productivity must go together — that a well-satisfied worker is necessarily a productive one — in spite of the considerable everyday evidence of offices where everyone has a fine time but no one gets any work done Indeed, if the only result of these studies were to scotch this hasty conclusion they would be worth while, but they have gone beyond this point to factors in the relation between the supervisor and his subordinates that are closely associated with their output.

Three things stand out in the successful supervisor's role: (1) the supervisors of high-production groups tend to spend more of their time on leadership functions and less on doing actual production work themselves. That is, the foreman sees his role as being that of a leader rather than a production worker, and accepts it with the consequent change in behavior. (2) The successful supervisors are employee-centered rather than production-centered In both the life insurance study and in the railroad, the supervisors with high-production groups had accepted their position as being one in which they worked *through* the group and accomplished production through the group, with the consequent primary emphasis on the group. The fact that employee-centered supervisors had higher production than production-centered supervisors is a remarkable evidence of the closeness of structure and function in primary work groups. (3) Finally, the leader who gets maximum effectiveness from his subordinates tends to be seen as not punitive, while the less successful leader is seen as punitive. It may be that this difference represents, at least in part, a leader who can keep his supervisory function impersonal and allow the reproof to be seen as flowing from the nature of the situation rather than from himself. The group's perception of the springs of the superior's behavior are seen to be highly related to efficiency.

ROLE PLAYING

The awareness of role problems, and particularly the awareness that the key to the supervisor's skills is an appreciation of the role demands that interaction with subordinates places on him, has led to a very great volume of work with role playing From a somewhat esoteric therapeutic technique, it has become a commonplace in industrial training departments. Its research potentialities for studying such things as role flexibility, role perception, and the limitations of long-term personality structure on the ability to take particular roles have not been exploited, but its great effectiveness in helping one to see the varieties of behavioral possibilities in a situation, to see the effects of particular roles in interaction, and in providing protected practice in adopting a new role has been thoroughly exploited.

Bavelas (1947) provides one of the first and best discursive descriptions of the way in which role playing functions in industrial training, while French (1945) has given a very valuable detailed description, with some verbatim examples, of the way it works in practice Recently, Maier's (1952) book on industrial training in human relations gives an exhaustive description, with instructions to the trainer and with case studies, that both shows situations in which role playing is applicable and provides content for role-playing sessions. A summary of the material on this topic is, in some senses, disappointing. Role playing has seemed to offer promise of both a theoretical analysis of roles and their meaning in groups, and a research tool for the investigation of group structure and the role of the individual in the group. In practice, it has given us very little of either. It has chiefly been a very valuable practical device for accomplishing a particular part of supervisory training. While this is a valuable function, one cannot help wishing for more of the original promise.

TECHNICAL PROBLEMS

Turnover and absenteeism It seems perfectly clear, in many job situations, that the incidence of turnover and absenteeism is largely controlled by social psychological factors. In a certain portion of the cases, turnover and absenteeism are determined by factors completely outside the job. As families move and situations change, turnover will occur, with serious illness and accidents there will be absenteeism. However, there is a variable portion of both phenomena superimposed on the hard core, and this variable portion seems amenable to theoretical statement and treatment in social psychological terms. When the factors influencing a decision to change jobs are almost even, or when the decision to go to work in the morning is evenly balanced, the person's place in the group and his feeling about himself on the job will be important determinants.

There has been relatively little systematic work on these problems, but what there is appears promising. Pennington (1949), in discussing a plant physician's experience, points out that physical disabilities are more prominent among regular attenders than among chronic absentees, implying a psychogenic determinant. However, in the medical tradition, such absenteeism is treated as a branch of the general problem of malingering, without contributing much insight into the psychological problem. Rice, Hill, and Trist (1950) report a study of long-term (six years) turnover records, in which they attempt a mathematical statement of the problem in field-theoretical terms. Turnover, they suggest, can be best understood in terms of the dynamics of institutional processes. Disregarding short-term fluctuations, the curve of turnover can be well represented by a simple hyperbolic function. They suggest that the point at which the acceleration shifts from positive to negative represents the end of the "induction crisis" — an institutional process in socio-psychological terms — and the beginning of a phase of differential transit. This phase ends when the curve steadies and the number leaving in successive periods is approximately the same. This represents, for them, the beginning of the third institutional phase, the period of settled connection. Wickert (1951) reports a study of employees in the Bell Telephone System, in which turnover was examined against scores on (1) a biographical data blank, (2) employment aptitude tests, (3) a neurotic inventory, and (4) a morale measure. None of the first three measures yielded significant differences among turnover and nonturnover groups, but the morale index showed discrimination, particularly in the area of the employee's involvement in decisions on the job, his feeling of contribution to the company, and his satisfaction with supervision.

These investigations tend to substantiate the feeling that turnover and absenteeism are fruitful areas for the investigation of effects of group structures on the job While the present evidence is sketchy, it is suggestive, and it is corroborated by a large body of anecdotal evidence and clinical observation.

Accidents in industry, similarly, seem amenable to a psychological interpretation, at least in the variable portion that may be thought of as superimposed upon a hard-core number of accidents that occur as a result of simple mechanical hazards. In general, there has been little systematic work on this problem The school of aptitude testers has emphasized the notion of accident proneness, treating it as if it were a quality resident in the victim, in much the way that leadership qualities have been treated (cf. above). Medical notice of the phenomena, insofar as it has attended to psychological causes, has tended to follow this line. For instance, Himler (1951) says "it is generally agreed by safety engineers that upward of 80% of accidents are due to personal reactions" and prescribes a better understanding of the degree of satisfaction of basic human needs as a remedy. However, he goes on to treat the problem again in terms of accident proneness, which seems an unfortunately phenotypical analysis of a problem whose causal dynamics need investigation.

Patterson and Willett (1951) offer the most detailed analysis of situational factors influencing accidents that is available. In studying accidents in Scottish coal mining, they point out, first, that long-term fluctuations in accident rates from mine to mine (and from Scotland to Great Britain) show substantial correlation (+ .53), and that a similar correlation exists between two Scottish mines studied in detail. They suggest that this correlation cannot be due to mechanical conditions, pointing out, in the two mines studied, great differences in such factors as depth of workings, underground traveling distances, height of seams, roof conditions, etc. Further, they point out that mechanization progressed at very different rates in the two cases, while the enforcement of safety regulations and diagnosing for treatment under national insurance acts seem to have been relatively homogeneous. They suggest that there is a general upward trend in accidents in the

mines, with a bifold annual cycle superimposed, and consequently they propose separate explanations for the seasonal and the long-term variation. In an experiment following this analysis, they begin with the assumption that the chief long-term causal factor is a growing lack of cohesion in the community which is accentuated by long-wall face techniques in working the mines (cf. above, the discussion of Trist and Bamforth's study of coal-mining techniques as psychological determinants of job performance) The investigators introduced a series of community steps aimed at increasing the cohesion of the working group in a particular section of the colliery. Off the job, smoking concerts, group trips to Glasgow and Edinburgh for football matches, and various informal parties were fostered, in an attempt to rebuild the group's structure. On the job, the same goal was aimed at by emphasizing in meetings the interdependence of the members and by instituting a system of painting sections yellow, indicating "I have left this section safe for the man who follows me here." In another mine the painting was introduced without the verbal stimulation in meetings, with no marked effect on accidents in the first year. In the experimental situation, however, there was a decrease in accidents amounting to 54% of the number predicted from the past curve and the correlation among mines, as well as other evidences of change in the form of such things as fewer improperly set supports for roofs, and the like. While it is difficult to control variables precisely in a field situation of this sort, this experiment is certainly highly suggestive of the possibilities of theoretical understanding and practical improvement from a psychological analysis of the causal dynamics underlying industrial accidents.

Morale. There is probably no other field in the general area of social psychological problems in industry in which there are so many publications as there are under the general heading of morale. The number of independent measurements of the state of morale in different situations and with different instruments is legion, and it has become necessary to fall back on a biennial bibliography simply to keep abreast of those reported in professional journals (Robinson and Hoppock, 1952). In spite of all of this material it is still difficult to say what is meant by morale, what its springs are in the human organization of a factory, or what its results are With the exception of a few studies, such as the work on productivity, supervision, and morale, mentioned above, there is little to be learned in summary. There is no question but what morale — however the concept should be defined — is a real phenomenon Indeed, there is little question that it is an important variable. However, this field, representing a triangular meeting of difficult grounds in motivational theory, the theory of social organization, and the techniques of interviewing, is still largely unrewarding. It remains as a technical problem, both from the point of view of the investigator who does not know quite how to tackle it, and from the point of view of the industrial executive or consultant social scientist, who does not know quite how to handle it, but who feels that it is there and that it must be important

Selection. Three aspects of the problem of selection belong properly in the sphere of social psychology. the first is the use of the leaderless group techniques to identify potential industrial leaders (Taft, 1948, Fraser, 1949, Symonds, 1947). The second is closely akin to and is represented by the kind of situational and holistic evaluation represented in the OSS approach and the Assessment of Men (OSS, 1948). This approach has not extended far into industrial selection as yet (although there is some evidence that the general point of view is taking hold there), and it is not possible to present a documented summary of experimental literature on the subject It seems clearly relevant and applicable to industrial problems, and there seems to be little doubt that it will soon be represented among the social psychological techniques in industrial use. The third area of selection is represented by Chapple's (1949) use of interaction analysis techniques to define relatively discrete clusters of individuals, and to use these types in the prediction of success in retail selling Perhaps because the technique was largely developed and used by a single institution it has not been reported as fully as one would like, but still it seems to be effective. It is basically a quantification of an aspect of role behavior in relatively standardized situations, and as such fits in the general line of development of role theory, as well as representing a refinement of sociometry. All three of these approaches combine essentially the same ingredients: a situational analysis, a freedom for the subject to exhibit his customary form of response to the situational demands, and an emphasis on the quantification of aspects of interaction of the group as the predictor of future criterion situations.

The consultant's role. It has already been pointed out that there has been a growing tendency for social scientists to accept a consultant's role in dealing with industrial problems, and

to work from this position both on research problems and on problems germane to the institution's objectives. This tendency has not only enlarged our fund of research on social psychological problems in industry and our insight into the kind of concepts that are necessary, but it has also pointed up a technical problem for the social scientist which is not peculiar to the industrial setting, but which appears unusually clearly here. The consultant who becomes involved in introducing a change in a plant soon finds that it is not the change alone — in concept — that is effective, but that he, himself, has become one of the variables. In a Heisenbergian sense, the investigator, in the process of his investigation, has become one of the causes of the phenomenon he is observing Thus, in the Hawthorne studies (cf above) the investigators found that, within limits, whatever they did increased production, because the mere fact of singling out a group and introducing a change altered the character of the group and its relation to the rest of the plant. Jaques (1952) reports on the same problem in his work in English industrial problems, as does King (1947) in the investigation referred to before. McGregor (1948), in an issue of the *Journal of Social Issues* devoted entirely to the problem of the consultant's role, points out some aspects of the problem, as does Haire (1948) in discussing training problems. It remains a problem which is both technically vexing and theoretically challenging to untangle the interaction between the changer and the change, and it is one which, in the nature of the case, will plague social scientists for a long time to come.

UNRESOLVED RESEARCH PROBLEMS AND UNDEVELOPED CONCEPTS

In looking back over the recent work in industrial social psychology, it is clear that it is a young and vigorous field, and one filled with experimentation. The experimenter who works in the field, however, soon feels a crying need for further formulation of concepts. There is a rich body of observational and experimental research work, but the faster these findings develop, the more pressing becomes our need for theory. At present, this deficit seems especially clear in three areas.

Motivation. We have ample evidence of the operation of many social variables. The tremendous effectiveness of participation is often demonstrated, but we have no good conceptual scheme to explain how it works, the springs of its power, or the conditions necessary for its operation. We know the strength of group-induced forces — in restraining productivity, in policing a group culture, and the like — but we do not have the theoretical formulation to handle these phenomena adequately. The most glaring weakness is probably in the field of morale, where we are most abundantly supplied with empirical data. Here we are beginning to amass a body of information that is all but incomprehensible for the lack of good motivational theory. Every morale study emphasizes the role of nonfinancial incentives — many of these are social in the broadest sense. There have been innumerable suggestions of the power of a feeling of belongingness and of group acceptance None of these is well handled in current theory. We must be able to deal with the effectiveness of status and status drives as psychological variables. We must have a better way to handle the operation of the relatively simple need for affiliation. The problem of leadership, too, uncovers additional demands for motivational theory. The more we change from the notion of leadership as something that exists in the leader and see it as a particular relation to the group, the more we need to understand the motivational meaning of the role which the followers demand of the leader, the adjustmental meaning of the leader's role to the follower, and the springs of action by which the leader directs the behavior of the group.

Lewin's (1947) formulations of social processes as quasi-stationary equilibria, already referred to, seem particularly well adapted to many of the social psychological problems encountered in the industrial situation. These statements are very useful in expressing the play of factors associated with the group and they provide an unusually clear picture of the dynamic balance of forces determining behavior. Their fruitfulness and applicability are well demonstrated in Coch and French's (1948) brilliant use of the theoretical constructs to deal with a particular group problem in industry. However, there is still a real lack. Lewin's description does give us a picture of the dynamic balance of forces, but it does *not* provide a conceptual framework to handle the origin and nature of the forces themselves. Both his final writings on social processes and the general past of Lewinian theory give us more of a way to handle the manner in which the forces operate than a system for integrating the nature of the forces themselves, their origin and meaning to the individual, and the conditions under which they arise. The Coch and French experiment illustrated the dilemma clearly. The main variable is the participation of the experimental

groups. Lewinian concepts show well the way in which the participation operated, but they are not adequate on the questions of what participation is in motivational terms, or why it operated as it did.

Other motivational approaches that have been applied to industrial social problems seem to leave a gap in a different place. The essentially individual approaches to motivation (which may be illustrated by McGregor, 1944, 1948; Bakke, 1947; and Maslow, 1946) give more theoretical meaning to motivational patterns, but they do not include enough peculiarly social motivations, nor do they handle the kind of dynamics that Lewin does McGregor traces with great insight the early adjustmental balance between independence and dependence, and shows their relevance in the dependence of the on-the-job situation. This analysis provides considerable insight into the function of the leader and, in developmental terms, allows for the origin of social motives in the need to attach one's self to the agent upon whom one is dependent. However, it does not seem to do justice to the essentially group-induced motivational forces that operate in restricting production or to the supra-individual power of a well-knit group. McGregor has drawn on Maslow's formulation of the hierarchical character of motives, as have Haire and Gottsdanker (1951), and this description helps us to understand the operation of nonfinancial incentives, and to see the dependence of the dominant needs upon situational factors and the current states of need-satisfaction. However, they still leave a good deal to be desired in the way of threading through the complexities of data on morale, and in understanding the link between morale as a measure of motives and productivity as a resultant behavior In many senses the most important single demand in the field of industrial social psychology is for an adequate motivational theory; not necessarily a motivational theory that applies to industrial problems or to social problems, but a well-built motivational theory that applies to psychological problems.

Group structure. In the field of the structure of the group, likewise, the industrial social psychologist badly needs more theory. The early promise of the group dynamics approach has not yet materialized in anything that can properly be called a theory of groups, and the host of phenomena that are related to the group are still impossible to handle in coherent theoretical terms. The problem of communication appears frequently as a variable dependent upon the structure of the group. In most cases, however, we can only state it as such, we do not have the framework to handle the independent variable meaningfully. The problem of interaction patterns and the large body of research arising from the content analysis of interactions is clearly significant and relevant, but it, too, demands a theory of group structure and the implications of group structure to make it useful. Wherever we turn in industrial problems we are faced with the need for a theory of groups. The historical origin of these questions in Roethlisberger and Dickson's enunciation of "the social organization of the factory" is still a research question that needs a conceptual frame. We are constantly confronted with the importance and relevance of questions of status and organizational hierarchies, but we are almost without a system in which to handle these variables in theoretical terms. The Lewinian school has made a real beginning in theoretical formulations of the nature and conditions of cohesiveness and divisiveness in groups and their relations to the group's output but, in a sense, their very beginning emphasizes how far we have to go.

The two theoretical areas — motivation and group structure — are not, of course, independent. Theoretical progress in one is not possible without the other. Both now lag well behind the collection of measurements in industrial social psychology, and unless there is a real advance here soon, the very richness of empirical data threatens to be overwhelming in its systematic unintelligibility.

Perception The problems of the social organization of industrial situations demand a great deal of redescription in psychological terms, in order that they may be handled as psychological (rather than industrial) issues in the theoretical developments that must come soon. As has been pointed out above, considerable progress has been made in the direction of providing a psychological description of jobs, toward a description of the variables as they appear to the worker embedded in the job rather than in institutional terms, and toward the kind of "disciplined naivete" of which MacLeod (1942) speaks in his writings on phenomenology in social psychology. Stagner (1948) also deals with the same kinds of problems, emphasizing the distinction between the physical and the phenomenal environment and the important role of the way in which the individual perceives the situation.

Here the demand is not so much for theory as it is for additional observational and experimental work following the theory. The basic statement of the situation in phenomenal terms

seems to underlie the possibility of further theoretical description in motivational or group terms, and to be essential before the theoretical weight of such more developed fields as learning can be applied to those aspects of the industrial problem that are relevant. The demand is particularly pressing in the acute problem of labor-management relations, where the social implications of the process of interaction press the social scientists for an answer. There is a bare beginning on the problem of labor and management's perception of each other and the meaning of this for their behavior with respect to each other, but it bears a great deal more work. Indeed, the whole field of role perception and self-perception falls under this heading and calls for intensive observation and description, so that we may know in more detail what kinds of problems exist. It is perhaps in the general area of the problem of the participant's perception of the social organization of the factory that the most important experimental advances are to be made at present.

Conflict and cooperation. There is one further rubric which is not quite on the same level of discourse as the three immediately above but which needs mention for special reasons: the problem of conflict and cooperation. Most of the psychologists working on social problems in industry seem to have had an implicit bias in favor of the thesis that cooperation is the most efficient way for a group or a group of groups to operate. This is never expressed altogether explicitly or documented in detail, but it seems to underlie the great emphasis put on participation, the communication of complete information, the assuagement of anxiety and insecurity, and the like.

There has been, in recent years, another group of research workers with a very different implicit bias in the same area. Much of the work that has been done has come from research workers whose approach has been primarily colored by a background in economic theory (e.g., Kerr and Randall, 1948; Reynolds and Shister, 1949). It is perhaps as a result of the traditional productiveness of a free enterprise of conflict that these groups have tended to lean, implicitly, toward an analysis of the social organization of the factory which in some respects would lead to making the conflict between groups (e.g, labor and management) explicit, and would expect the presence of this conflict to be stimulating rather than debilitating The theoretical issues have not been squarely joined to date, and there seem to be ample grounds for rapprochement between the two schools of thought, but at present they exist simultaneously and with relatively little regard for each other. Occasionally they encroach on each other's bailiwicks, and this must necessarily occur more and more as each group widens its sphere. The psychologist begins to encroach when he makes what the economist feels are unrealistic analyses of the motivation of economic behavior, and this is an area which psychological theory must eventually embrace if it is to be inclusive. Katona (1951) has made an excellent start, though primarily aimed at the economics of saving and consumer spending. Eventually psychological theory must be brought to encompass the economic facts of industrial activity if we are to have an industrial social psychology. Likewise, the economists encroach when they analyze the causes of labor-management harmony (Kerr and Randall, 1948, is one of a series of studies of this problem) with what seems to psychologists to be a naive behavior theory. The facts of group pressures in industry force the old-fashioned description of the economic man to give ground, as do the facts of labor mobility (e.g., Reynolds and Shister, 1949). As the economists in the field move closer and closer to the social behavior problems in industry they, too, will feel the need for a theoretical statement which will include both sets of facts.

Conflict and cooperation remains primarily a problem that is implicitly present in the approaches of various schools of thought. In some measure it is one of the variable conditions under which both psychological and economic principles must operate as explanatory terms. This problem presents one of the rare areas where an interdisciplinary union seems to be forced by the nature of the research rather than the exigencies of the supraordinate research administration. It seems likely that the future examination of this problem will be extremely fruitful to both groups.

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CHAPTER 30

The Psychology of Voting: An Analysis of Political Behavior

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The possible concerns of the social psychologist with politics are as extensive as the political process itself. On the level of government, he might investigate the relationship between personality factors and success in various offices or bureaucratic roles, he could examine the methods used by staffs to gain the assent of their members or legislative bodies. A second series of problems relates to the psychological aspects of organized political groups outside the formal governmental structure Why do people join social movements, political clubs, or pressure groups? What is the role of leaders of such movements? What are the sources of strength of the various groups, both formal and informal, which seek to influence legislation or administrative policy? A third area of concern involves the activity of the "man on the street." What are the basic sentiments that make him accept the political order? What affects his interest in new ideas so that at one time he will participate actively in political groups, even to the point of supporting a revolutionary movement, while at other times he is so apathetic that he is not informed about major political events and does not even bother to vote?

When this chapter on political behavior was first planned, the temptation was very great to organize it in terms of these major areas. It soon became clear, however, that such a plan would have at least two disadvantages. First, each section itself subsumes a number of different content fields, and therefore extensive coverage would necessarily involve superficial treatment. Secondly, a cursory examination of the relevant literature indicated that there had been very little work which cumulated theoretically or substantively. Most of the empirical studies are unrelated to each other and were undertaken for fortuitous reasons. It is doubtful, therefore, whether a systematic organization of the field is worth while at this time. R. Heberle (1951b) has made a first attempt at it, and it would be impossible to improve on his contribution within the limits of a single chapter.

In view of these initial conclusions, the decision was made to develop the present chapter as a systematic survey of one specific kind of political behavior of major concern to social psychology, namely, voting behavior. Three reasons dictated this decision.

First, it is clear that the social psychology of voting is, in its own right, an extremely important topic. It has been neglected in the past partly because voting does not seem as interesting or dramatic as other "noisier" kinds of behavior. The lynch mob, groups in catastrophic situations such as unemployment, members of extremist political groups — all seem to promise greater insights into the political process. But this conclusion is highly dubious. The noted British historian, Namier (1952), introduced a review of two recent studies of British elections with the comment: "The General Elections are the locks on the stream of British democracy, controlling the flow of the river and its traffic" (p. 183). This image is a happy one. It underscores the fact that, to the casual observer, elections seem relatively unimportant as compared, say, with major changes in social legislation But, actually, many of the political events that we observe from day to day are determined by the periodic resetting of the governmental machine.

A second reason for choosing voting is the extent of transferability of methods and concepts to other important areas. The act of voting can well be used as a paradigm for many other activities The decisions that a modern Western man makes every few years in the political arena are similar to those he makes every day as a consumer of goods and services. They are also comparable in many respects to less frequently made but even more significant

*This chapter was made possible through the collaboration of three research projects, located at Columbia University: Project for Advanced Training in Social Research (Rockefeller Foundation), Inventory of Knowledge on Political Behavior (Ford Foundation), Uses of Panels in Social Research (Social Science Research Council).

personal decisions, such as changing jobs or moving to a new area. Systematic analysis of the factors affecting one decision, such as voting, for which a considerable body of empirical data is available, should therefore contribute to the understanding of behavior in many other sectors of modern life.

While these two considerations would have been sufficient to justify the attention paid in this chapter to voting, the final decision to undertake the task was determined by the recognition of the significance of this field to an understanding of "human action" Thirty years ago, every major textbook in psychology devoted a section to this topic Gradually, however, the subject disappeared from the literature, as psychologists became convinced that it was an "unscientific" formulation. More recently a new trend has emerged. In a presidential address to the American Psychological Association, Sears (1951) called for a "theory of action" as distinct from, and even more important than, a theory of learning. Psychoanalysts are becoming concerned with the need to study the "ego functions" of the normal individual. One leader in this development deplores the fact that "we still have no systematic presentation of an analytical theory of action" (Hartmann, 1947, p. 359). And when a major effort was made to coordinate the work of psychologists, sociologists, and anthropologists, the joint product was called *Toward a General Theory of Action* (Parsons, Shils, *et al*, 1951).

Actually, the concern with "action" or a "theory of action" has a long and honorable history in the behavioral sciences, an intellectual phenomenon which is dealt with in another context by one of the authors (Lazarsfeld, unpublished manuscript on the history of action theory). Whether "human action" can be the organizing scheme for a body of problems and findings is certainly not clear, in spite of the waves of efforts which first philosophers and, later, behavioral scientists have made. But it is worth while to select one specific and socially relevant type of action, such as voting, and to review, from the standpoint of social psychology, what is known about it today. Actually, the amount of data available is so great that a word has to be added about selection and organization in the present chapter.

Our *first section* summarizes the extensive literature dealing with interpretation of voting statistics. Findings have been compared and interpretation organized into as coherent a scheme as possible. The result is a series of concepts, psychological "mechanisms," and social "processes" that seem to impress themselves upon most students in this field. We are still far from a systematic theory, but at least our outline is an inductive product built upon the independent thinking of a large number of students. In order that the details may not become confusing, the section has been divided into *three parts*. The first part takes as its starting point the rates of voting, irrespective of parties, the second centers around the characteristics of voters "left of center"; the third organizes the specific sources which deal with age differences in voting.

We deal in a *second section* with those studies that have directly investigated the voting decision. So far, about a dozen "panels" have been observed over several months of various electoral campaigns In this kind of design the investigator has greater freedom but also greater responsibility. He knows in advance that he will want to interpret the outcome of the election. It is necessary, therefore, to introduce into the successive waves of the questionnaires the variables that will be needed in the final interpretation. In panel studies the same respondents are interviewed repeatedly and thus the number of possible interrelations is considerable. The ensuing logic of analysis is complex and fairly new, hence a relatively detailed methodological exposition seemed in place.

Our *third section* is designed as a safeguard. Political scientists often accuse the behavioral scientist of "taking politics out of political behavior" (Key and Munger, 1954) because he studies it outside of its historical context. The first two sections will show that this is not necessarily the case. But the danger undoubtedly exists, and therefore a special discussion seemed advisable indicating how one may analyze and take into account historical change even if he works from the standpoint of a social psychologist.

The findings of the first section have necessarily given the problem a somewhat static character. The second section deals with short-term change, while the third section adds the long-term perspective and thus links the two preceding ones into a broader frame. To apply an old saying. while there is not yet available a theory of political behavior, this review should show that there is relevant material and therefore hope that one may emerge.

The Study of Political Behavior through Voting Statistics

Out of the immense realm of human activities, there are three areas in which modern societies keep regular statistical records: the areas of buying and selling, of birth and death, and of voting. The availability of such "social bookkeeping" offers a challenge and an opportunity to social science. Is it possible to discover regular patterns in these records of mass behavior, to construct systematic explanations for the patterns, and to relate these explanations to our knowledge of human behavior in general?

In the area of voting behavior, we have records both of the total turnout and of the distribution of votes between parties from all those countries having elections and from a great many local subdivisions of each. These records form time series which in some cases run back over a century of eventful history. An extensive literature has grown up in which social scientists have sought to identify recurring relationships of voting behavior to social situations and groupings and to construct explanations for these relationships (Eldersveld, 1951; Heberle, 1951a).

The present section is a preliminary effort to summarize the statistical regularities that have been found and some of the chief explanatory factors that have been proposed in the literature to account for these regularities It will also attempt to clarify the procedures employed in analyzing available statistics of this kind. Two substantive areas will be covered: the problem of electoral participation (voting *vs* nonvoting) and the problem of the left-right, or liberal-conservative, direction of voting. Of course, a thorough analysis of the available facts and the proposed explanations must involve a long-term program of research. What is attempted here is only a brief and simplified survey, intended to lay out lines for further work.

PARTICIPATION

Participation in politics covers a wide range of activities: leadership in national affairs, local leadership, work as an organization member, informal "opinion leadership" among one's associates, or simply forming opinions and voting. The present discussion is limited to the minimum level of participation as recorded in statistics of voting and nonvoting. Of course, the act of voting is usually only the final stage in a process of paying attention to politics, reading and listening, talking and thinking. The explanations of voting rates naturally relate in large measure to this wider pattern of behavior of the citizen We are not, however, attempting to discuss the higher levels of participation such as organizational work and leadership.

It is interesting to note in passing that, while the behavior of national leaders is chronicled in the news and in history, and that of the voters in the election statistics, there is a gap in the recording of intervening levels of political behavior. When social scientists want to study the operation of organizations and informal social groups in politics, they usually have to gather their own basic facts through field studies. The resulting literature of community and institutional analyses deserves a careful review, which cannot be undertaken here.

Empirical regularities in rates of voting turnout. The proportion of the electorate which turns out to vote shows wide variations between social groups and situations. Our summary attempts to exclude the effects of legal and technical restrictions, which are often reflected in the raw statistics, such as: residence requirements, of considerable importance where geographical mobility is high, as in the United States; poll taxes and property qualifications; literacy tests, often used as a cover for racial discrimination, and burdensome registration requirements, often maintained by political machines to hold down the vote (Key, 1949, 1952). These factors can be of great practical importance in the political life of a country, but they do not raise problems on the level of the individual behavior of the citizen. We are concerned here with the problem of voluntary nonvoting.

This summary also attempts to exclude relationships that are merely the result of some other factor, as where a regional difference is wholly explained by differences in income. Each of the factors listed is supposed to have an independent effect on voting when the others are held constant, although sometimes the data do not permit an adequate test of this possibility.

The available data on voting turnout presents certain recurrent relationships, which are summarized in Table 1.

The procedure of explanation. Students of voting behavior have offered a wide variety of explanations for these statistical regularities: wheat farmers vote more than farmers in mixed farming because they are more exposed to eco-

TABLE 1

SOCIAL CHARACTERISTICS CORRELATED WITH VOTING TURNOUT

Higher Turnout		Lower Turnout
High income		Low income
High education		Low education
Occupational groups: Businessmen White-collar employees Government employees Commercial-crop farmers Miners		Occupational groups Unskilled workers Servants Service workers Peasant, subsistence farmers
Jews	Protestants	Catholics
Whites		Negroes
Men		Women
Middle-aged people (35-55)	Older people (over 55)	Young people (under 35)
Old residents in community		Newcomers in community
Workers in Western Europe		Workers in United States
Crisis situations		Normal situations

nomic fluctuations; coal miners vote more than most other workers because they have such strong community ties; servants have low turnout because they are exposed to conflict between the influence of their own class and that of their employers. These explanations have the following general form (Kendall and Lazarsfeld, 1950):

1. A given social classification is found to be empirically correlated to a rate of behavior (wheat farmers vote more than mixed or subsistence farmers).
2. The social categories as given are reinterpreted as indicating some more general attribute (wheat farmers are exposed to severe economic fluctuations, requiring government action to alleviate).
3. This attribute is related to the behavior in question by a more or less general proposition (people exposed to problems requiring government action are more likely to try to influence government action, by voting, among other means).

The *validity* of such an explanation depends on two steps: the correctness of the reinterpretation of the original social categories and the correctness of the proposition relating the interpretative attribute to the behavior in question. Sometimes both of these appear obvious — "everyone knows" that wheat farmers are more exposed to economic fluctuations than are most other farmers, and it is "normal behavior" for people affected by government action to try to control that action by voting. In other cases the explanation may be much more speculative: Are American workers exposed to more conflicting influences than European workers? And does exposure to conflicting influences really reduce rather than intensify interest in voting?

In some cases the process of explanation can be turned around and the available data used actually to test propositions. The explanation of one known group's behavior may be generalized to form predictions for the behavior of other groups not yet studied. Thus we might proceed from wheat farmers with their price fluctuations to other occupational groups subject to various kinds of insecurity and predict that they too will have high rates of voting. Such a prediction could be tested by obtaining voting statistics for other groups which are known to suffer from economic insecurity.

However, since voting behavior is affected by a number of factors simultaneously, a simple comparison of groups in terms of one factor may give misleadingly positive or negative results. What is required are systematic comparisons of a number of test cases, each characterized on several attributes; this permits us to observe the effects of varying one attribute at a time, holding the others constant. Such a multi-

variate analysis is the normal procedure when working with survey data on individuals where we have hundreds or thousands of cases. The available voting statistics, however, often restrict us to a handful of cases on the level of areas or social groups differing on many factors; in such cases the analysis is more suggestive than conclusive.

Explanatory factors for rates of turnout. Underlying the many specific explanations offered in the literature for observed variations in voting rates there seem to be two basic interpretations of the act of voting itself. The most obvious meaning of voting is that it is an attempt to influence the policies of the government. This implies on the one hand the existence of some value or interest which is affected by government policies, and at the same time the availability of information about the relevance of government policies to the individual's values or interests.

An alternative meaning of voting is that it is a response to group pressures which require the individual to vote, regardless of whether he feels that any particular policies will affect him. We may label this "conformity voting" as distinct from "interest voting." Of course, in many cases both factors may be involved.

Nonvoting, therefore, may reflect the absence of either of these two reasons for voting. the absence of a belief that one's interests are involved or the absence of pressures from the group to vote. But nonvoting may also occur in a third situation — where there are various reasons for voting, but reasons which place the individual in conflict as to which way to vote. If sufficiently intense, such conflicts might produce a tendency to withdraw from the choice situation — the election.

This analysis of the individual act of voting has suggested four very general "explanatory propositions," under which we can sum up many of the specific explanations found in the literature on group differences in voting turnout.

1. A group will have a higher rate of voting if its interests are more strongly affected by government policies.
2. A group will have a higher rate of voting if it has more access to information about the relevance of government policies to its interests.
3. A group will have a higher rate of voting if it is exposed to social pressures demanding voting.
4. A group will have a higher rate of voting if the pressures to vote are not directed in different political directions so as to create conflict over which way to vote.

The social categories found in official statistics and in the routine "background data" of most opinion surveys do not give direct information about these explanatory propositions. What is available to the analyst are classifications set up for immediate practical purposes: age, sex, income, occupation, race, religion, geographical region, etc. What the analyst does is to draw upon his additional knowledge of these groupings in order to "interpret" them in terms of attributes appearing in explanatory propositions about voting.

Under each of the four general explanatory attributes drawn from the explanatory propositions listed above it is possible to make certain further classifications of the factors found in concrete cases. These are presented in Table 2. Although they are far from well developed, they are offered as a first approximation of the social

TABLE 2

EXPLANATORY FACTORS FOR RATES OF VOTING TURNOUT

1. *Social factors affecting the relevance of government policies to the individual:*
   a. Dependence on government as one's employer
   b. Exposure to economic pressures requiring government action
   c Exposure to government economic restrictions
   d. Possession of moral or religious values affected by government policies
   e. Availability of relevant policy alternatives
   f. General crisis situations
2. *Social factors affecting access to information*
   a. Direct visibility of effects of government policies
   b Occupational training and experience making for general insight
   c Contact and communication
   d. Amount of leisure
3 *Social factors relating to group pressure to vote:*
   a Underprivilege and alienation
   b. Strength of class political organization
   c Extent of social contacts
   d. Group norms opposing voting
4 *Social factors relating to cross pressures:*
   a. Conflicting interests
   b. Conflicting information
   c. Conflicting group pressures

factors accounting for group differences in voting.

We can now see how these various types of explanation have been applied to the original list of group differences in voting turnout. Some of these group differences have been explained in several different ways and will therefore appear as examples under more than one explanatory factor. In fact, many of the social groups would have to be described by a pattern of favorable and unfavorable attributes with regard to voting turnout, as we shall try to demonstrate later in this discussion

1. *The degree to which interests are involved in government policies.* Although it may be argued that everyone is affected by government policies, some groups are more affected than others, and these groups might be expected to have a higher turnout at the polls than that of the public at large.

(a) *Dependence on government as employer.* The purest case of involvement in government policies is naturally that of *government employees.* Confronting the government not only as citizens but as employees facing employer, their whole economic position and working life is affected by government. Data from national and local elections both in the United States and in many European countries show that government employees have the highest turnout of any occupational group (Tingsten, 1937; Dupeux, 1952; Girod, 1953, Table V, Anderson and Davidson, 1943).

(b) *Exposure to economic pressures requiring government action.* It might be suggested that groups subjected to economic pressures with which individuals cannot cope, such as inflation, depression, monopolistic exploitation, or structural change in the economy, will turn to government action as a solution and tend to vote more. This has certainly been the case with *farmers who produce for national and world markets,* such as the wheat farmers. Long subject to periodic collapses in the price of their product and to the monopolistic power of banks, railroads, processors, and dealers, these farmers in almost every advanced country developed a high degree of political "countervailing power." They now enjoy government price supports, crop insurance, regulation of railroads, banking, etc, which in effect guarantee a large part of their incomes It is not surprising that this group has a high rate of organizational activity and a high turnout at the polls (Lipset, 1950).

Among workers, one might pick out the *miners* as particularly vulnerable both to periodic crises and to structural changes in the economy, they also have a high turnout as compared with other workers (Butler, 1951). On the other hand, there are many cases where drastic economic need is accompanied by low political participation (Jahoda-Lazarsfeld and Zeisel, 1932, Bakke, 1940). It is clear that need is not sufficient. Other factors required for need to express itself in political action will be discussed shortly.

(c) *Exposure to government economic restrictions* In most countries the *businessmen* are drastically affected by government economic policies In the nineteenth century there were old government restraints to be cleared away and government benefits to be sought. In the twentieth century the government has again become the source of severe restrictions on business, to the point where taxes and regulations are among the most important economic factors with which the businessman must reckon The high turnout of businessmen in almost every country undoubtedly reflects these facts (Tingsten, 1937, Harris, 1954, Campbell and Kahn, 1952, Campbell, Gurin, and Miller, 1954).

(d) *Possession of religious or moral values affected by government policies* Economic interests are not the only interests that motivate voting. The high voting rate of *Jews* in recent years has been explained as due to the threat created by political anti-Semitism (Tingsten, 1937; Korchin, 1946, Chap. IV) The anti-religious threat implied by Communism is said to be effective in bringing out Catholic voters in some elections. Catholic turnout is also said to be increased by such issues as legalization of birth control or government aid to religious schools. However, precise data on Catholic turnout are hard to find.

Moralistic issues such as prohibition of alcohol appear to bring out a higher *women's* vote, both in the United States and in Norway (Tingsten, 1937) The prominence of the "corruption and Communism" issue in the 1952 American elections may account for the unprecedented turnout of female voters — estimated at 55 percent, compared with the previous high in 1940 of 49 percent (Harris, 1954, Chap. VI).

In general, the role of noneconomic interests in turnout is one of the least-studied problems. It may be inherently more difficult to study through available voting statistics, since such interests are harder to isolate geographically and arise more sporadically than economic issues.

(e) *The availability of relevant policy alternatives.* The relevance of any particular election depends not only on the needs of the voters for various government actions, but on

the alternative programs which they are actually offered. It does not always happen that a distressed group finds a program designed to help them. When new programs of government action are proposed, the importance of voting may be increased for those affected. Precise statistical data do not seem to be available, but it is said that the introduction of old-age pension proposals increased the turnout of old people and that veterans benefit proposals increase the turnout of veterans. The New Deal's federal work-relief program may have given many low-income people their first real stake in national politics.

The whole rise of working-class voting in Europe during the late nineteenth and early twentieth centuries followed closely on the creation of new parties and programs representing the workers' interests. The lower turnout of *American workers,* especially before the New Deal period, has been attributed to the basic conservatism of both parties in America's two-party system. Even after the New Deal had arisen, over half of the voters reported that "there are no differences" between the two parties or were unable to say what they are (Cantril and Harding, 1943).

(f) *General crisis situations.* In general, the relevance of politics for the electorate as a whole is increased when the nation faces a crisis — when major changes in its social, economic, or political system, or in its international position are involved. André Siegfried (1913, 1949) has documented the effect of "crisis elections" on turnout during the period 1876-1906 in France. During these elections the issue of republican or monarchical government was crucial, and turnout was high; from 1881-1898 this issue was more or less in abeyance and turnout fell. The crisis over the position of the Catholic Church in society from 1902-1906 brought a new high in turnout. American studies suggest that the economic crisis situations of 1896 and 1936 and the international crises of 1916, 1940, and 1952 provoked unusually high turnouts (Gosnell, 1930; Key, 1952; Harris, 1954). In Germany and Austria, the normally high turnout reached its greatest heights in the last elections before the destruction of the democratic system itself (Tingsten, 1937; Dittmann, 1945).

2. *Access to information about the relevance of government policies.* One fact which is obvious from the investigation of voting behavior is that, while great social problems can lead to high participation in elections, they by no means always do so. Often those subject to the most severe economic distress — poor workers, the unemployed, poor peasants — have the lowest rate of voting. We have already mentioned the possibility that this may result from the distressed group's finding no available party which represents its interests But this is not always the case; there are many examples in which an informed observer would maintain that voting is highly relevant to the interests of a group, and the turnout is still low.

In such cases we may turn to the problems of social perception and communication to provide an explanation. Two groups may have an equal stake in government policies, but one group may have easier access to information about this stake than has the other.

(a) *Direct visibility of effects.* Some policies are naturally more visible than others to the people involved. To take a simple example, the impact of government policies on *government employees* is not only objectively great, but is transparently obvious. The same may be said of agricultural policies benefiting the *farmers* and of controls and taxes levied upon *businessmen.* On the other hand, the impact of a whole collection of government policies on a *worker or white-collar employee* in his role as consumer may be very large in the aggregate by way of tariffs, controls, antitrust policies, taxation, subsidies, etc., but it is hidden and indirect. Some policies demand nothing short of expert professional training to trace their effects. The factor of visibility sometimes enters into the lawmaker's choice of policies: a sales tax collected at the point of sale is a constant reminder; one collected at the manufacturer's level is invisible to the consumer — a lesson well known to Soviet tax policymakers. It is not easy to isolate this factor of visibility as it affects voting rates, but it seems likely that the low turnout of the ordinary workers and other low-income people reflects the relative indirectness and invisibility of crucial economic relationships.

(b) *Occupational training and experience making for general insight.* Where economic relationships are not easily visible to those involved, the factor of general insight or "sophistication" becomes important. Insight into complex social problems can result from education and no doubt contributes to the higher turnout among the more-educated groups (Lazarsfeld *et al*, 1944; Korchin, 1946; Campbell and Kahn, 1952; Connelly and Field, 1944). But it also depends on social experience, particularly the continuing experience of one's daily work. The upper occupational groups benefit not only from more education but also from the fact that their job activities continue their intellectual development, at least along certain practical

lines. Most *executives* and *business owners* and many branches of the *professions* deal daily with complex legal, economic, and technical problems which develop their skill in understanding the working of complex social and political mechanisms. The *routine clerical* and *manual jobs,* on the other hand, give little opportunity for acquiring such insight This may be a major factor in the increase in voting rates usually found as one goes up the scale of income and occupational skill (Tingsten, 1937; Campbell and Kahn, 1952) The *housewife* is at a great disadvantage in this respect, a fact that may help to account for the lower voting rate of women in general.

This relation of occupational to political skills has long been noted at the higher levels of political activity Workers' and farmers' movements notoriously draw their leaders from the professions — lawyers, journalists, teachers, priests, whose jobs necessarily involve knowledge of public affairs and abilities of speaking, writing, and organizing (Michels, 1949). Leaders who do come from the lower classes most often do so by way of trade union or cooperative offices — virtually the only positions directly accessible to the ordinary worker or farmer in which he can learn political skills (Lipset, 1954). The importance of printers among the pioneers in union and labor party organizing also reflects the effect of occupational activities on political skills. It was such considerations that led Marx and Engels to demand the "abolition" of the division of labor as a necessary condition for a classless society (Engels, 1939) A less utopian suggestion sometimes made is to expand the scope of the worker's role in industry to include certain "managerial functions," so that he can acquire intellectual and organizational skills in the course of his work (Drucker, 1949). Any such changes would undoubtedly affect voting behavior as well.

(c) *Contact and communication.* A further obvious factor making for political awareness is communication with others who have the same problems, either personally or through interest-group organizations. In general, occupations that create a high degree of contact among their members would be expected to have greater political awareness and higher voting rates. Such an occupation is *mining.* By the technical nature of the industry, miners must live in communities apart from the rest of society, where almost all social contacts are with fellow miners. This may be one factor contributing to the high turnout in mining districts that has been noted in England and that is impressionistically reported from other countries, including the United States At the opposite extreme *domestic servants* and *service workers* tend to work in isolation from other workers and in close association with the middle- and upper-class population, whose problems are quite different from their own. These groups are particularly low in their turnout (Tingsten, 1937, Girod, 1953, Table V). The effect of the industrial revolution in concentrating the workers in large plants and urban working-class districts was looked upon by Marx as a major factor in the development of working-class political awareness (Marx and Engels, 1951). By contrast, he believed that the geographical scattering of the peasants would prevent them from developing a class political movement (Marx, 1951) The failure of this prediction for many Western countries may be due to the subsequent development of rural communications, with rural education, railroads, electrical communications, and the automobile.

Related to this factor of informal, personal contacts is the development of interest-group organizations devoted specifically to arousing awareness of common problems and to organizing participation in politics: trade unions, business organizations, farm organizations, and class political parties. In every country the *businessmen* have highly developed class organizations, and a large part of the press represents their viewpoint This must contribute to the high turnout so generally observed in this group On the other hand, workers are by no means always so well organized. The *American worker,* for instance, even when a union member, seldom is exposed to as much propaganda and persuasion to take an interest in politics as is the businessman, and he votes much less.

In some *European cities,* however, the socialist labor movement has created a vast network of institutions for indoctrinating the workers from childhood on, men and women alike; all kinds of publications and cultural activities are operated by the socialist movement and flavor their output with political ideology. In these cities the usual class differential in voting turnout has been entirely eliminated or even reversed. In Vienna, for instance, no less than 94 percent of the workers have turned out to vote in crucial elections (Tingsten, 1937), and in the working-class districts of Berlin the turnout has exceeded 90 percent (Munke and Gurland, 1952), surpassing the turnout of the businessman, professionals, and white-collar workers.

(d) *Amount of leisure.* The experiences and associations one has on the job probably

play a major part in political awareness, but leisure-time activities are also important: informal discussions, attending meetings, reading, studying. But certain occupations give very little leisure — notably those giving the least stimulation during working hours. A manual or clerical worker or a poor peasant who must work long, regular hours to earn his living is barred from the extent of political activity open to the higher-income groups (Mattes, 1921), the professional man with flexible working hours, or — to take the extreme case — a man with practically nothing to do, the *rentier*. This has well-known effects in determining who becomes active in organizations and in political leadership (Weber, 1946). But it also may affect the ability to follow political affairs, which leads up to voting. The low participation of the *very poor* — impoverished peasants or unemployed workers — may be particularly attributable to the extent to which the daily struggle for existence drains their energies, leaving nothing to invest in long-run, uncertain ventures in political action.

The group most affected by lack of leisure is probably the *women*. The role of housewife and mother is particularly demanding: "Man works from sun to sun, but woman's work is never done." In every country women have a lower turnout than men. This sex differential increases as one goes down the income scale. This suggests its relation to the number of children and the absence of laborsaving devices or servants. Some studies also suggest that marriage restrains the political activities of the husband (Gouldner, 1947).

While lack of leisure can obstruct political participation, the general increase in the leisure of the masses does not seem to have resulted in more public participation, contrary to the hopes of nineteenth-century reformers. Some writers maintain that participation has actually decreased, since the entertainment value of politics in the nineteenth century has been surpassed by new forms of mass entertainment — movies, radio, commercial sports, etc. (Lynd and Lynd, 1929). However, the evidence of long-term trends in voting or other levels of participation is not very satisfactory because of deficiencies in the older data and such analytical failings as comparing the purely male electorates of the nineteenth century with those of the twentieth, which include women.

3. *Group pressures to vote.* Even if people are not aware of a personal stake in the electoral decision, they may still be induced to vote by social pressures and inner feelings of social obligation. In most communities in the Western world, and particularly in the United States, voting is part of the middle-class norm of good behavior and good citizenship. To the extent that any group seeks middle-class approval or has internalized middle-class norms, it will tend to regard voting as a good thing in itself.

(a) *Underprivilege and alienation.* The force of middle-class norms of behavior is notoriously less in groups that are deprived of the living standards and the social acceptance enjoyed by the middle class. Thus we know that in the United States *very low-income people* tend to reject the norms of success striving, saving, "good manners," etc. Their low rate of voting may be part of this general pattern. The low turnout of *Negroes* even in the North is partly attributable to their concentration in the low-income group, but it may also reflect the weakness of social-conformity norms for a group which is denied the normal rewards of conformity because of race discrimination. The evidence regarding race differences in voting when economic status is held constant is unfortunately meager and contradictory (Litchfield, 1941a, Myrdal, 1944).

(b) *Strength of class political organization.* Besides the general social norm of voting as "good citizenship," there are many interest groups which demand that their members turn out to vote in some particular way for the good of the group. Such pressures can play the same role as the middle-class norm of good citizenship, where the underprivileged groups have their own class organizations. Thus the high turnout of *European working-class districts* probably depends a good deal on class conformity pressures, as well as on the sheer rational enlightenment of labor-movement propaganda. The low turnout generally found among *American workers* therefore may reflect the fact that they are somewhat alienated from middle-class norms but have not developed class institutions and political norms of their own. It has been noted that workers who belong to unions have a much higher turnout than workers who are nonmembers (Campbell and Kahn, 1952). The historical device of political machines in poor urban districts in America has been to use appeals to ethnic and religious group solidarity as a basis for conformity pressures toward voting (Key, 1952; Brown and Roucek, 1945, Chaps. 15-16).

(c) *Extent of social contacts.* Conformity pressures would obviously depend on the amount of contact a person has with social groups. One evidence of the operation of such pressures is therefore found in the lower turn-

out of *newcomers* in a community as compared with that of the long-time residents. This has been reported for many communities in the United States, in Switzerland, and in England (Tingsten, 1937; Merriam and Gosnell, 1924, Arneson, 1925, Birch, 1950; Girod, 1953). The same factor may contribute to the lower voting of *young people*, who have not yet taken a place in the organized social life of the adult community, and of the *very old*, who are losing their social contacts through retirement, infirmity, and death within their age group.

The highest pressure to vote as a symbol of conformity is found where the objective significance of the vote is nil. in totalitarian show elections. In Nazi Germany and the Soviet Union enormous efforts have been devoted to contacting the entire electorate and requiring it to vote. In the 1946 elections to the Supreme Soviet, we are told that 99.7 percent of the electorate of over 100 million people turned out to vote, of whom 99.2 percent voted for the single official list (Towster, 1948, Department of State, 1948b). If the sense of external threat to American society increases, we may expect an increasing emphasis to be laid on voting as a symbol of loyalty and satisfaction with the existing political system. Unless such an increase were accompanied by a corresponding increase in concern with the issues, it would hardly be related to the ideal of rational participation in self-government.

(d) *Group norms opposing voting* There are some cases in which group pressures are directed in exactly the opposite way — against voting. The universally lower vote of *women* may be due in part to norms of a "woman's place," which disapprove of political participation for women. In the United States these do not seem to prevent voting among women who are interested; however, women with little interest feel free not to vote, while men with little interest still feel called on to go to the polls (Lazarsfeld, Berelson, and Gaudet, 1944; Kitt and Gleicher, 1950).

Antivoting norms are also found in some extreme radical groups, which urge abstention as a protest against "bourgeois democracy." These appear mainly in the late nineteenth and early twentieth centuries in areas of strong anarcho-syndicalist influence. In parts of the South the norms laid down by the dominant white group for the behavior of Negroes include a prohibition on voting (Dollard, 1937, Myrdal, 1944, Chap. 22).

Within groups where the norms oppose voting we would expect the opposite phenomenon from that discussed earlier with regard to conformists and nonconformists The conformists would be the nonvoters, and the nonconformists — the "short-haired women," the "non-class-conscious worker," the "Negro who doesn't know his place" — would be more likely to vote.

4. *Cross pressures* We have so far considered three types of factors which affect rates of voting: the importance of the interests which are affected by government policies, the amount of information about how one is affected, and group pressures requiring voting. A deficiency of any of these will result in a lower rate of voting. But a low rate of voting can also result if the influences favoring voting are in conflict over *which way* the individual should vote. People have various interests or values which may be affected by government policies; for some people each available party may be good in some ways and bad in others. People may be exposed to conflicting information about which party will favor their interests. And people may belong to different informal or formal groups which exert pressure to vote for different parties Any of these cross pressures would cause inner conflict and a tendency to withdraw from making a decision.

This effect has been studied in some detail through surveys during the 1940 and 1948 election campaigns, and the results show that as cross pressures increase, the individual tends to delay his voting decision and to become less interested in the election (Lazarsfeld *et al.*, 1944; Berelson *et al.*, unpublished study of the 1948 election based on the Elmira panel).

The cross-pressure effect may also help to account for some of the variations in voting rates found in the available data. Unfortunately, these data seldom permit us to distinguish the different forms of cross pressures discussed above, since all three seem to occur together.

The lower-income groups in most stratified societies are exposed to strong upper-class influences through the press, radio, schools, churches, etc.; the existing system has many traditional claims to legitimacy which influence even the lower classes. Yet the lower classes are also exposed to influences favoring reformist or radical voting from their class organizations and from their own life experience. They are thus placed in a situation of conflicting information and opposing group pressures. Members of the upper classes, on the other hand, are seldom exposed to much working-class propaganda or group pressure; they live in a relatively "homogeneous political environment," where all influences point in one political direction. This may be one reason for the generally ob-

served class difference in voting turnout. Truman has constructed a crude index of the political homogeneity of the social environment of various social categories, using survey data on how people felt that other people around them would vote. This tended to support the notion of greater homogeneity of political environment for the upper classes (Mosteller *et al.*, 1949).

This hypothesis would suggest that working-class groups which for any reason are cut off from upper-class influences should have a higher turnout than other workers. One such group might be the *miners*, who are geographically isolated from middle-class associations. Another would be the *workers in European cities* such as Vienna (Sturmthal, 1943), where such a comprehensive system of working-class social and cultural institutions was developed that the worker had relatively little contact with "bourgeois" influences. Both of these groups, as we have seen, have unusually high rates of voting turnout. Even in the United States, survey data suggest that union-organized workers live in a more homogeneous political environment than do the unorganized, and they have a much higher rate of voting (Mosteller *et al.*, 1949).

In European countries particularly, the *working-class women* are more concerned with religious values and more exposed to church influences than are their husbands, who tend to belong to leftist unions. The conflict between the pressure of their class position and of their husbands, in favor of leftist voting, and the opposition of the churches to the antireligious left parties may lead to a withdrawal from political choice and contribute to the lower turnout of women, which is particularly marked in the working class.

Occupational mobility, upward or downward, and the hope of improving one's class position would be expected to create an ambiguity of class position and interest for the individual which would lead to cross pressures and withdrawal from political choice. The greater expectation of mobility in the United States might therefore be another factor making for lower voting rates here as compared with Europe. The hope of changing one's class is also strongest among the young people, and they have the lowest turnout in the United States. The age differential, significantly, is much less in Europe, although it still exists (Berelson *et al.*, 1954; Münke and Gurland, 1952). Here again, in the absence of materials for systematic comparisons of various combinations, it is hard to say how much of the difference in rates is to be attributed to one explanatory factor and how much to others.

Summary. The explanations which have been discussed above are summarized in Table 3. This will help to clarify the way in which most concrete social categories can be associated with several different explanatory factors that might mediate their relationship to voting. Of course, the table gives only a very simplified representation of the relationships involved, and many of the explanatory factors proposed are quite speculative.

PATTERNS OF LEFT AND RIGHT VOTING

The distribution of votes between parties offers even more striking patterns of social differences than does the rate of turnout, and the same kind of analysis can be applied. The literature on voting behavior contains many attempts to account for these patterns in terms of underlying social factors. We shall offer here a summary of the observed regularities and of the proposed explanations in terms of the particular problem of left-right, or liberal-conservative, voting

In their raw form, the party-vote figures depict the rise, the fluctuations, and sometimes the fall of particular historical parties within various countries and in districts within each country. As in the analysis of participation, we can try to reclassify the given groups and situations in terms of more general explanatory attributes. But while the behavior involved in our previous discussion was a simple dichotomy — voting or not voting — the classification of how people vote is extremely complex. How is one to classify the great variety of parties found in different countries at different periods?

The classification of votes One commonly used classification is in terms of the "left-right" dimension. Historically, terms such as "left," "liberal," and "progressive," and their opposites, "right," "conservative," and "reactionary," have been defined on the basis of different issues in different situations: political democracy *vs.* monarchy, the free market system *vs.* traditional economic restrictions, secularism *vs.* clericalism, agrarian reform *vs* landlordism and urban exploitation of the countryside, social reform *vs.* laissez-faire, socialism *vs.* capitalism. The parties and social groups which have been "left" on one of these issues have by no means always been "left" on another. Nevertheless, at any given period and place there is usually a considerable consistency in who is left and who is right on the currently important issues (Duverger, 1951, 1952; Goguel, 1950).

TABLE 3

EXPLANATORY FACTORS RELATED TO ORIGINAL STATISTICAL REGULARITIES IN RATES OF VOTING TURNOUT

	Relevance of government policies	Awareness of relevance due to Direct visibility	Training, job experience	Contact, communication	Amount of leisure	Social Pressure to vote	Absence of cross pressure	Voting rate
High income	+	+	+	+	+	+	+	Higher
Low income	+	—	—	—	—	—	—	Lower
Miners	+	+	—	+	—	+	+	Higher
Servants	—	—	—	—	—	—	—	Lower
Workers in Europe	+	—	—	+	—	+	+	Higher
Workers in America	+	—	—	—	—	—	—	Lower
Government employees	+	+						Higher
Private employees	—	—						Lower
Wheat farmers	+	+						Higher
Nonmarket farmers	—							Lower
Jews	+							Higher
Non-Jews	—							Lower
Crisis periods	+							Higher
Normal periods	—							Lower
Whites						+		Higher
Negroes						—		Lower
Old residents						+		Higher
Newcomers						—		Lower
Age 35-55						+	+	High
Over 55						—	+	Medium
Under 35						—	—	Low
Men			+	+	+	+	+	Higher
Women			—	—	—	—	—	Lower
Totalitarian "elections"						+		High

Note Plus sign indicates condition relatively more favorable to voting, minus sign, one relatively less favorable, with respect to the groups compared.

The present analysis is based on a crude dichotomy between "left" and "right" parties By "left" we shall mean advocating social change in the direction of greater equality — political, economic, or social, by "right" we shall mean supporting a traditional, more or less hierarchical social order, and opposing change toward greater equality. Of course, this groups together parties which have quite different approaches to social change and which may be in practice bitterly hostile toward one another. It ignores the question of the finer degrees of leftism and rightism. It also neglects other issues which at times cut completely across the left-right dimension as defined here, such as regional autonomy *vs.* centralism, national self-determination *vs.* imperialism, and, most recently, political democracy *vs* totalitarianism

It can be maintained, however, that the issue of equality and social change has been a dominant one in most countries over the last two or three generations and that it overlaps to a

considerable extent with the older left-right issues such as democracy-authoritarianism and clericalism-secularism. The most significant issue cutting across the left-right dimension today is that of political democracy *vs.* totalitarianism (Shils, 1954). In some countries the great majority of the traditional leftist vote goes to totalitarian Communist parties, while in some the traditional rightist vote has gone to various forms of fascist parties. But even in such cases it seems that the economic left-right issues are much in the minds of the rank-and-file voters and that they remain relatively unaware of the issue of totalitarianism, however great its objective significance.

Empirical regularities: income and vote. Having made this classification of parties, it is possible to see how the rate of leftist and rightist voting varies between different social categories. The most impressive single fact is that in virtually every economically developed country the lower-income groups vote mainly for parties of the left, while the higher-income groups vote mainly for parties of the right.

One explanation for this is simple economic self-interest The leftist parties represent themselves as instruments of social change in the direction of equality, the lower-income groups will support them in order to become economically better off, while the higher-income groups will oppose them in order to maintain their economic advantages The statistical facts can thus be taken as evidence of the importance of the economic motive in political behavior. They can also be taken as an indicator of the extent to which political behavior is rational, if we are willing to assume that the programs of the left and right parties would actually accomplish what their respective supporters hope and their opponents fear This, however, raises very large questions of economic and social organization, which cannot be discussed here, even though they are crucial to the problem of political rationality.

Once the general tendency of left-right voting to correlate with income has been noted, our attention is immediately called to the great amount of variation which remains within income groups, particularly on the lower-income side. One often finds large groups of low-income people who vote for rightist parties, and there are a number of social characteristics that make for higher or lower rates of leftist voting even when income is held constant. It is this problem of variations in voting within income groups that will be our main topic of discussion here, taking for granted the correlation of left-right voting with income. These variations offer the possibility of going beyond rational economic interest as an explanatory mechanism to discover other significant motives, and to find sources of "irrationality" in political behavior. We shall discuss mainly variations on the lower-income side, because the higher-income groups show much less variation.

Empirical regularities: variations within the lower-income group. We present in Table 4 a summary of the social characteristics that are

TABLE 4

SOCIAL CHARACTERISTICS CORRELATED WITH VARIATONS IN LEFTIST VOTING WITHIN THE LOWER-INCOME GROUP

Higher Leftist Vote	Lower Leftist Vote
Larger cities	Smaller towns, country
Larger plants	Smaller plants
Areas of high unemployment rates	Areas of low unemployment rates
Minority ethnic or religious groups	Majority ethnic or religious groups
Men	Women
Economically advanced regions	Economically backward regions
Workers in European Countries	Workers in the United States
Specific occupations:	Specific occupations:
Miners	Servants, service workers
Fishermen	Peasant, subsistence farmers
Commercial farmers	White-collar workers
Sailors, longshoremen	
Forestry workers	

related to variations in the rate of leftist voting within the lower-income group, i.e., those whose standard of living ranges from poor to just adequate by local standards — most workers, working farmers, routine white-collar workers, etc. In making international comparisons of political behavior, it is difficult to make a more precise classification.

Explanatory factors for variations in leftist voting within low-income groups. Leftist voting is generally interpreted as an expression of discontent, an indication that needs are not being met. We have already noted the straightforward explanation of leftist voting as an attempt by the lower-income groups to win higher living standards. Where variations in voting still exist within the lower-income group, they may be due to the frustration or satisfaction of *other needs,* or they may be due to *conditions* which facilitate or impede a leftist political response to deprivation. Students of voting behavior have suggested the following additional needs as possible explanations of the observed voting behavior:

1. The need for *security of income.* This is quite closely related to the desire for higher income as such; however, the effect of periodic unemployment or collapse of produce prices seems to be important in itself.
2. The need for *satisfying work* — work which provides the opportunity for self-control and self-expression and which is free from arbitrary authority.
3. The need for *status* — for social recognition of one's value, and freedom from degrading discrimination in social relations.

The main conditions influencing the extent to which deprivation will lead to leftist voting are the following:

1. *Channels of communication* are required through which the deprived group can become aware of its common problem and develop collective political action.
2. *Individualistic solutions,* as through social or geographical mobility, must be relatively unavailable, so that discontent will be channeled into collective action.
3. *Traditionalistic attitudes* and relationships which limit people's aspirations and inhibit attacks on existing social institutions must be weak.

A high rate of leftist voting therefore indicates both the presence of severe sources of dissatisfaction in terms of the above needs and the presence of conditions favorable for that dissatisfaction to be channeled into leftist political action.

Let us see how these explanatory factors have been applied to the statistical regularities listed earlier.

1. *Insecurity of income.* Certain occupational groups in the lower-income category suffer from extreme insecurity of income: one-crop farmers, fishermen, miners, and lumbermen are conspicuous examples. How do these groups vote?

The prototype of the "boom-and-bust" agricultural economy is that of the North American wheat growers. Depression or drought, or both, have hit the wheat belt in every generation since it was settled. Many studies of the political behavior of this region have been made, and all agree that the wheat farmers are the most leftist of all farmers in times of economic crisis. They have formed the core of the great agrarian radical movements — the Greenbackers, Populists, and Non-Partisan League in the United States, and in Canada the Progressives, Social Credit, and Cooperative Commonwealth Federation (Lipset, 1950; Hicks, 1931; Rice, 1924, Chap. II, Key, 1952, Chap. II; Macpherson, 1953). The only socialist government in North America above the local level is the Cooperative Commonwealth Federation provincial government of Saskatchewan, a one-crop wheat area.

Studies of one-crop commercial farmers in other parts of the world show that they also tend to support periodic protest movements. However, for various reasons these have often taken the form of support of a dictator who is "above parties" — Bonapartism, Boulangism, and DeGaullism in Western France, Nazism in Schleswig-Holstein (Siegfried, 1913, Chap. 44; Heberle, 1945, Chap. III, Loomis and Beegle, 1946; Nilson, 1950, 1953). This suggests the need for a more refined classification of political movements than the simple left-right scheme we are using here.

In contrast with such insecure agricultural groups, those whose crops are diversified, those who depend on local rather than world markets, and even the very poor subsistence farmers whose level of living is steady and reliable tend to support conservative parties.

Fishermen selling to national or international markets are in much the same position as the wheat farmers — subject to the vagaries both of nature and of highly flexible prices. Around the world, commercial fishermen appear as leftist voters. In Norway, the first Labor representatives in the Storting were elected from a fishing district (Bull, 1948). In Iceland, the fishermen support the strongest Communist Party in Scan-

dinavia (Nilson, 1951). Heberle (1945) reports on the success of the leftist parties among the fishermen in Schleswig-Holstein. Siegfried (1913) found the fishermen a strong leftist group in his pioneer study of voting statistics in Western France (see also Leger, 1936). The fishermen of British Columbia are a strong source of support for the leftist unions (Jamieson and Gladstone, 1950a,b). In the United States the west-coast fishermen are traditionally militant and are organized in a Communist-dominated union, even though they are mostly owners or part-owners of their own boats. Great Lakes fishermen swung strongly Democratic in the 1930's (Pollock and Eldersfeld, 1942).

Miners are among the working-class groups most exposed to unemployment, and they are one of the strongest leftist groups throughout the world. In the British elections of 1950, the thirty-seven Labor candidates sponsored by the National Union of Mineworkers were elected with a median vote of 73 percent (Nicholas, 1951). In Canada, the only eastern district which regularly elects a socialist is a coal-mining area in Nova Scotia, the only Quebec constituency ever to elect a socialist to the provincial legislature was a metal-mining area. Studies in the United States show that coalminers are among the most valuable supporters of the Democratic party (Gosnell, 1942).

In France, where workers in nationalized industries elect representatives to works councils, the underground workers in coal mines gave the Communist-controlled C G T. 80 percent of their votes — a higher figure than was given by any other group, including railroad, rapid transit, public utility, shipyard, aircraft, and automobile workers. Ecological data from Germany suggest that in pre-Hitler elections some mining areas in the Ruhr and Silesia gave disproportionate support to the Communists (Flechtheim, 1948).

Lumbermen work in an industry which is subject to severe cyclical fluctuations. Data from Sweden suggest that lumbering areas give the Communists a higher vote than do the large industrial centers (Nilson, 1951). A study of California data showed that lumber areas give more support to leftist candidates than do other areas (Gosnell, 1942). Similar results appear in Michigan (Pollock and Eldersfeld, 1942). Qualitative data, such as the prominence of lumbermen in the I W.W., also indicate their tendency toward radicalism.

Finally, in some countries we have direct data on the rate of unemployment by regions or survey data on experience with unemployment. In Pennsylvania the counties that were most affected by the depression were the most strongly pro-Roosevelt in 1932 and 1936 (Gosnell, 1942) Similar results were found in Michigan (Pollock and Eldersfeld, 1942). Survey data pinpoint the fact that, of all low-income people, those on relief were the most strongly Democratic — over 80 percent in 1936 and 1940 (Gosnell, 1942). A study of political attitudes in 1944 found that of the American manual workers who had never been unemployed, 43 percent were "conservative," as compared with 14 percent of those who had experienced more than a year of unemployment (Centers, 1949).

Similar findings are reported from Great Britain — the higher the unemployment in an area, the stronger the Labor vote. Moreover, the extent of unemployment in the 1930's was still affecting voting during the full-employment year of 1950 — the districts that showed the least decline in Labor vote between 1945 and 1950 were those with the most depression-time unemployment (Nicholas, 1951, George, 1951). In Germany, the extent of unemployment of wage workers has been found related to the size of the Communist vote in the 1932 elections (Pratt, 1948, Chap. VIII).

The relative conservatism of white-collar workers in the United States may be due to their greater job security during the depression. Only about 4 percent of the white-collar workers were unemployed in 1930, as compared with 13 percent of urban unskilled workers (Mills, 1951). In Germany, they were much more affected by the postwar economic crisis and the depression. The German white-collar workers, however, tended to turn to the fascist movement rather than to the leftist parties with their doctrinaire emphasis on the proletariat (Geiger, 1931, 1932; Pratt, 1948, Chap. VIII).

2. *Unsatisfying work.* Students of working-class movements have often suggested that the nature of the work situation itself, aside from wages and security, is an important factor in creating satisfaction or dissatisfaction. First, the factory worker spends his days under the control of others, often subject to arbitrary discipline. Secondly, the workers in mass-production industries with minutely segmented, routine tasks have little opportunity to interest themselves in their work and to exercise creative abilities.

From this reasoning, we would expect that the more arbitrary the managerial authority and the more monotonous the work, the more discontented the workers would be and the more likely to support political movements aiming at social change. There are some observed regu-

larities which have been adduced to support this claim.

The finest division of labor and the most highly developed managerial authority are said to be found in the large industrial plant. There is evidence that the larger the industrial plant, the more leftist are the workers. A study of voting in large German cities before 1933 found that the higher the proportion of workers in large plants, the higher was the Communist vote (Pratt, 1948). A study of the American printing industry has likewise found a relation between political leftism and size of shop (Lipset *et al*, 1954). The vote on social elections of particular large plants — for example, Renault in Paris, 70 percent C.G T. — and impressionistic data suggest that Communist strength in unions is related to large size

An indicator of the degree of skill and creativity *vs.* routine and monotony is offered by the type of industry. The study of German voting mentioned above found that cities with industries involving higher skill (instruments, printing, toys) had a lower Communist vote than those with industries of a mass-production nature (metal production, metal working) (Pratt, 1948). The more individualistic and "meaningful" nature of the farmer's work is sometimes suggested as contributing to the conservatism of most farmers as compared with factory workers, even though the latter may have equal or higher incomes.

The problem of the political effects of types of work and of work organization is complicated, and the evidence of the available statistics is only fragmentary. While records are kept of the rate of unemployment and the level of income in different areas and occupations, data on the nature of the job and on the type of authority to which workers are subjected are not collected. This suggests a need for survey research directed to these topics.

3. *Prestige status.* Certain variations in voting among low-income groups have been cited as evidence of the great importance of the desire for social status — for esteem or prestige, for being accepted as an equal or even granted deference as a superior. Two main sources of prestige status which seem to affect political behavior are occupational prestige and ethnic or religious group prestige.

In virtually all societies manual workers are accorded low status relative to white-collar workers. The lack of respect with which they are treated by office personnel, salespeople, clerks, minor officials, etc., and the general failure of middle-class society to recognize their economic contributions and personal abilities are said to be reasons for the worker's dissatisfaction with the status quo and for his political leftism. On the other hand, a group which is economically poorly off may derive enough satisfaction from higher prestige status to give it a stake in the existing order and to be politically conservative. This is said to be the case with poorly paid white-collar employees.

Innumerable surveys have shown that the white-collar workers take a political position between that of the businessmen on the one hand and that of the manual workers on the other (Gallup, 1948, Centers, 1949; Benson and Wicoff, 1944; Harris, 1954; Cantril, 1951). This has been found in the United States, Great Britain, and Continental Europe. For some reason, the results are seldom tabulated for manual and white-collar workers holding income constant, but there is good reason to believe that the greater conservatism of the white-collar people is not solely due to higher income. A study of voting in the 1949 Norwegian election showed that the vote for leftist parties (Communist and Socialist) was over twice as high among manual workers as it was for white-collar workers on each income level (Barton, 1954).

Some direct evidence of the importance of the status motive in white-collar political behavior is provided by a study of "class identification" in the United States. Sixty-one percent of white-collar workers call themselves "middle class," as against only 19 percent of manual workers Among the white-collar workers, this self-labeling makes a great difference in attitudes — 65 percent of the "middle-class" white-collar workers have conservative socioeconomic attitudes, compared with 38 percent of the "working-class" white-collar workers. Among manual workers, subjective class identification makes much less difference in attitudes — 37 percent of "middle-class" manual workers have conservative attitudes, compared with 25 percent of the "working-class" workers (Centers, 1949).

The political role of the white-collar workers was studied intensively in Germany, but unfortunately this was before the days of sampling surveys (Geiger, 1932, 1931). Studies using available voting statistics by areas suggest that the white-collar vote swung from the conservative parties to the Nazis under the impact of the depression of 1929 (Dittman, 1945; Dix, 1930, Stephan, 1931). One study even found a correlation between the proportion of the unemployed among the white-collar workers in German cities and the Nazi vote (Pratt, 1948, Chap. VIII). The generally given explanation for this is that the Nazis represented a hope for

solution of the economic crisis, at the same time promising to maintain the status position of the white-collar workers, while the Marxist parties offered them economic gains only at the cost of "proletarianization" (Geiger, 1932).

A second prestige hierarchy is set up on a religious or ethnic group basis. Usually, minority religions, nationalities, and races are subjected to various forms of social discrimination, while the majority group obtains self-esteem and deference from its alleged superiority. The low-income member of a minority group is subject to additional obstacles to economic and social achievement, the poor majority-group member, on the other hand, may find substitute gratifications in his ethnic or religious "superiority" This would provide an explanation for the tendency of minority groups to vote more leftist than do members of the majority group within any given income level.

In the United States many studies show that low-income Catholics are more strongly Democratic than low-income Protestants (Ogburn and Talbot, 1929, Lazarsfeld *et al*, 1944; Gosnell, 1942; Korchin, 1946; Harris, 1954). In Great Britain, Australia, and New Zealand there is a strong tendency for Catholics to support the Labor parties (Overacker, 1952). In these countries, also, Jews have a tendency to be far less conservative than Protestants (Korchin, 1946; Lubell, 1951, Harris, 1954). The Negro minority in the United States tends to be more Democratic than whites on a given income level; indeed, within the Negro group economic status makes little difference in voting (Morsell, 1951).

Other examples can be found in Asia. In India the Andhras, a large linguistic minority, have been among the strongest supporters of the Community Party, while in Ceylon the Communists are disproportionately strong among the Indian minority. In Japan the Korean minority gives considerable support to the Communists (Swearingen and Langer, 1952); in Israel the Arab minority, and in Syria and Lebanon the Christian minority, have been relatively pro-Communist (BASR, 1952).

All these facts suggest the importance of the desire for status as a political motive. They do not, of course, permit us to assess the relative weight of material and prestige factors in determining voting, although this might be possible through refined survey techniques. They do suggest, in any event, that status differences can account for a good deal of the variation in voting which remains when economic factors are held constant.

Conditions facilitating or hampering leftist voting among underprivileged groups Granted that a group of people is suffering from some deprivation under the existing socioeconomic system, it does not automatically follow that they will support political parties aiming at social change. For such a political response to occur certain conditions must be present. We shall now discuss three such conditions that have been suggested to account for observed variations in voting within the lower-income group.

1. *Channels of communication.* Perhaps the most important of these conditions is the presence or absence of good communications among people who have a common problem. Close personal contacts among such people help each to become aware of the community of interests and to develop collective action, including political action, to solve the common problems. When informal contacts are supplemented by formal interest-group organization in trade unions, farm organizations, or class political movements, with all their machinery of organizers, speakers, newspapers, etc., political awareness will be intensified still more. On the other hand, people who are exposed mainly to personal contacts and formal communications from groups with different economic interests than their own are much less likely to develop class consciousness and to support parties favoring social change.

We have already discussed several occupational groups which suffer from severe insecurity of income and which vote strongly leftist — one-crop farmers, fishermen, miners, lumbermen In each of these groups there was not only a strong reason for social discontent, but also a social structure favorable to intragroup communications and unfavorable to cross-class communications. In all these cases the occupational group tends to be identical with the social community; we have an "occupational community" in which off-the-job contacts simply reinforce those on the job. This is true of forestry workers, also, for they live in isolated communities, often in common barracks. And in all these groups we can observe a ready political response to economic crises in the form of support of leftist political parties.

In contrast to such groups, domestic servants live in intimate contact with middle- and upper-class people and are relatively isolated from other working-class people. All available statistics show that servants are among the most conservative of working-class groups. The service industries generally have to have small units scattered among the well-to-do populations they serve, so that we would expect service workers to be less likely to support leftist move-

ments. The white-collar workers' well-known lack of organization and class consciousness may also be attributable partly to the small units in which they work and to their scattering among higher-level managerial personnel (Dreyfuss, 1952).

Two general social factors that correlate with leftist voting are size of industrial plants and size of cities. We have already noted that there was a correlation between size of plant and leftist vote in German elections before 1933. The same study found a relation between overall city size and leftist vote (Pratt, 1948, Chap. III). In the United States, surveys have shown that manual workers in large cities have more radical attitudes than those in smaller communities (Centers, 1949, Ennis, 1952).

In both these cases the communications factor may be involved. The large plant makes for a higher degree of intraclass communication and less personal contact with people on higher economic levels. In large cities social interaction also is more likely to be within economic classes In certain cases the working-class districts of large cities have been so thoroughly organized by working-class political movements that the workers live virtually in a world of their own, and it is in these centers that the workers are most solidly behind leftist candidates It is interesting to note that about a century ago Marx analyzed the influence of the large factory and the large city on the development of class consciousness and stressed just these communication factors

We have mentioned earlier that the higher economic classes seem to have much less deviation from rightist voting than the lower classes have from leftist voting. This has been explained in terms of the higher degree of organization and the greater facilities for communication possessed by the upper classes. They are able, through the mass media of communication and educational and religious institutions, to expose the lower classes to their viewpoint, while they themselves are hardly touched by lower-class political influences. This more homogeneous political environment not only makes for less cross pressure but for less deviation than is found at the lower-class level.

2. *Opportunity for individual mobility within the existing system.* Granted that the lower-income groups suffer deprivations and feel discontent, there are possible responses other than collective economic and political action. The discontented individuals may attempt to better their lot within the existing economic system, to work their way up along one or another ladder of success. If such a possibility is believed to exist, there will be a corresponding reduction in collective efforts at social change, as expressed by unionization, cooperatives, and leftist voting.

This has long been the major explanation proposed for the fact that American workers tend to vote for conservative or at best mildly reformist parties, while European workers normally vote socialist. Living in an open-class society, with a developing economy which continually creates new jobs above the manual-labor level, the American worker is more likely to believe in individual opportunity. His European counterpart, living in closed-class societies which do not even pretend to offer the worker a chance to rise, has no choice but to act collectively for social change. While these stereotypes of the relative mobility rates do not correspond to reality, they might well affect voting.

Unfortunately, it is not easy to give precise statistical validation for this explanation, since there are so many other ways in which European and American society differ. In America the working class as a whole has risen, through the large long-term increase in real wages, to a position which in other countries would be termed "middle class" There is a good deal of evidence that workers believe in individual opportunity; various surveys show about half the workers saying that they have "a good chance for personal advancement in the years ahead" (Roper, 1947). A study in Chicago in 1937 found that no less than 85 to 90 percent of every economic group believed that their *children* had a good chance to be better off economically (Kornhauser, 1939, Table IV). It is to be hoped that comparable data can be obtained from Europe and that these items can be related to political behavior through comparative surveys. Recent data indicate that actual social mobility in Europe is as high as that in the United States, but that the *belief* in mobility differs (Lipset and Rogoff).

3. *Traditionalistic attitudes and relationships.* One of the most striking cases of deviation from leftist voting within the lower-income group is presented by some relatively poor and economically less-developed regions that regularly vote conservative. Such areas are found in the Southern states of the United States, in Southern Italy (Schepis, 1950), in Bavaria in Germany, in Quebec in Canada, in the Scottish Highlands in Great Britain, and in the West of Norway. The political pattern of such regions has been summed up in the statement, "Every country has a South." All these areas tend to have conservative politics. They also

tend to have a special regional flavor in their politics which separates them from the main lines of political division within the country and sometimes produces regional or separatist parties (Burks, 1952).

One obvious explanation is that poverty can be so extreme that it prevents effective organization and destroys all hope of being better off Extreme ignorance and illiteracy makes communication and understanding of political programs difficult People completely occupied by the day-to-day task of keeping alive have no surplus of time and energy to invest in long-run ventures for betterment through democratic political action They also may be too powerless to stand up to economic pressure or violence used against them by the local privileged classes Thus the tenant farmer and the farm laborer in America have never been able to build up effective economic and political organizations, even when they had sympathetic help from government agencies such as the Farm Security Administration under the New Deal

The most powerful deterrent to leftist political action by the impoverished workers and peasants of backward areas, however, is the extent to which their minds are dominated by "traditionalistic" values — resignation to a traditional standard of living and loyalty to the "powers that be." In these areas the social structure remains much as it was before the age of capitalism and the free-market economy. The positions of rich and poor are defined as the natural order of things, supported by personal, family, and local loyalties, rather than being a product of impersonal economic forces, subject to change without notice. At the same time the poor peasant or worker performs a role which has an obvious meaning and value and he derives gratification from stable personal relationships and ceremonial activities embracing the whole community Religious belief tends to be strong and to support the status quo (Siegfried, 1913).

In contrast, the position of a commercial farmer or urban worker in a rationalized market economy offers no such stable structure of personal, family, and community relationships, embroidered with religious significance. The personal relationships and local institutions that rewarded loyalty and punished deviation from traditional beliefs are swept away, and aspirations for economic betterment are encouraged. The railroad corporation or the grain elevator operator are protected by none of the ancient legitimacy which hallows the power of the great land-owning family. The commercial farmer is free to respond to frustration with militant support of parties favoring social change.

While backward, agrarian areas have generally been among the most conservative, it should be noted that they sometimes burst into flames of revolt Once shaken loose from their acceptance of traditional values, the victims of extreme poverty may swing over to the most radical extremes Even in the American South, the 1890's saw an explosive growth of radical populism, mobilizing some of the poorest farmers in the country, both white and Negro This electoral uprising met with failure and disappeared, leaving hardly a trace In the impoverished Italian South the Communists have gained votes in every postwar election, even while losing some strength in their traditional strongholds in the industrial north (Department of State, 1948a) The two most drastic political transformations of our time, the Russian and the Chinese Communist revolutions, took place in countries that were almost wholly of this backward, traditionalistic social structure

Little is actually known about the conditions under which a backward area can be suddenly transformed from one end of the political spectrum to the other. Studies of political attitudes in the Near East suggest that communications from the outside can play an important part by creating discontent and holding out the example of an American or a Russian Utopia in which ordinary workers and farmers live well (BASR, 1952). The problem of political behavior in backward areas is one of the most important and perplexing in the world today from the viewpoint of advocates of political and social democracy. A large part of the "free world," and particularly of the line of containment around the Soviet sphere, is made up of just such areas.

The factor of traditionalism is also used to account for the greater conservatism of women, noted particularly in European voting studies. Women are usually more influenced by traditional religious beliefs, which uphold the existing social order (Tingsten, 1937). Direct evidence of this has been found in opinion surveys in France — 47 percent of the women said they paid "much" or "a little" attention to the position of the Church when deciding how to vote, as compared with only 33 percent of the men (F I.P.O., 1952). The greater conservatism of workers in small towns may also reflect the remnants of traditionalistic attitudes and relationships. The raising of strong moralistic issues in the 1952 United States presidential election produced a major sex difference in

party voting for the first time in many years (Harris, 1954, Chap. VI).

Summary. We may now attempt a rather oversimplified summary of the explanation of variations in left-right voting within the lower economic classes. The schematic chart presented in Table 5 is not intended to be complete or to suggest the full validation of the relationships shown. However, it may serve as a "check-list" of suggested explanations, one that can be further developed in the direction of systematic knowledge of political behavior. Its main value at the moment may be to clarify the fact that for each concrete group of voters several explanatory factors may be operating, that not single factors but whole patterns of factors must be taken into account in making explanations or citing cases as evidence for a given hypothesis.

POLITICS AND THE LIFE CYCLE

In the first two sections, we have suggested various ways in which the act of voting is related to different factors. In each case, the treatment was necessarily static, that is, we dealt with the effect on voting of being a worker, a member of a minority group, or having some other attribute. These factors, however, can affect the behavior of individuals only because they are shorthand descriptions of much more complex sets of common experiences usually shared by persons who fall in the same classificatory group. These common experiences, in turn, occur in time, that is, people have them at certain periods in their lives. It is important, therefore, to specify the points at which people are likely to have experiences which affect their political behavior.

TABLE 5

EXPLANATORY FACTORS RELATED TO ORIGINAL STATISTICAL REGULARITIES IN VOTING WITHIN THE LOWER-INCOME GROUPS

	Types of deprivation:			Facilitating conditions:			
	Insecurity of income	Unsatisfying work	Low prestige status	Good intra-class communications	Low expectation of mobility	Lack of traditionalism	Left vote
Workers in:							
Large plants	+	+	+	+	+	+	Higher
Small plants	+	—	+	—		—	Lower
Workers in:							
Large cities				+		+	Higher
Small towns				—		—	Lower
Workers in:							
Europe				+	+		Higher
United States				—	—		Lower
Manual workers			+	+			Higher
White-collar			—	—			Lower
Minority group			+				Higher
Majority group			—				Lower
Commercial farmers, fishermen	+	—		+		+	Higher
Local-market, subsistence farmers	—	—				—	Lower
Miners, lumbermen	+	+	+	+	+	+	Higher
Servants, service workers				—		—	Lower
Economically advanced areas	+					+	Higher
Backward areas	—					—	Lower
Men				+		+	Higher
Women				—		—	Lower

Note: Plus signs indicate factors favoring leftist voting in lower classes.

Socialization and adolescence. Clearly the first and perhaps most important set of experiences affecting individuals is found in the family, long before voting age. As Riesman (1950) put it, "The child, of course, begins its taste training in food early, while he must postpone his training in sex until adolescence. In politics, however, the child can also begin at an early age, especially in the middle class and in the schools that emphasize current events. Adulthood brings voting but otherwise little new consumer experience in politics" (p. 212). In Europe, where the radical and religious political parties have children's groups for those six years of age and older, the fact that politics begins in childhood cannot be overlooked. Totalitarian societies start political training as early as possible (Gould, 1951). The prevalence of campaign buttons among American children, not to speak of the parades of the "Kids for Ike," indicates that politics is far from unknown to American children

Little, however, is known about the acquisition of political attitudes or of the social values underlying them in childhood, but studies on the development of ethnic prejudice (Clark and Clark, 1952, Horowitz, 1952, see also Chapter 27), on awareness of status distinctions (Hyman, 1942; Himmelweit *et al.*, 1952), on attitude correlations in the family (Murphy, Murphy, and Newcomb, 1937; Newcomb and Shelva, 1938) shed some light on a comparable process. These studies show that such attitudes are absorbed from parents or peer groups and that they tend to be integrated into the child's system of values as he grows older. We know also that such attitudes, formed in childhood, tend to persist into adulthood unless upset by a fundamentally different set of experiences and social relations

Four American studies yield some data on youthful politics. Centers (1950) has shown that fundamental variations in political values related to parental occupational position existed among a sample of high-school students who were less than sixteen years old. The children of professional people and business executives tended to be opposed to labor unions and to collectivist programs, while workers' children favored them. One of his most significant findings is that the children of union members were far more favorable to organized labor than were the offspring of workers who did not belong to unions. This finding clearly suggests that actual family discussion and attitudes, not simply family class position, are crucial in forming political attitudes among the young. Breslaw's (1938) study, which is methodologically weak because it involved retrospective reporting, also indicates that discussions in the home play a part in the formation of political sentiments. Coser (1951), in a study of high-school sophomores in a progressive school, was able to show that concern with politics affected the interpersonal relations among school children. Jones (1943), reporting on a questionnaire given to high-school seniors which asked students how often they discussed various topics, reports that 36 percent of the boys checked "often" or "very often" in connection with political topics, while 34 percent checked "sometimes" and only 30 percent checked "seldom" or "never." The majority of the girls, however, checked "seldom" or "never," indicating that the sex differentials in political interest begin long before voting age. A German study (A. Buseman, 1926) made in the early 1920's reports that when asked to write an essay on the subject, "Am I satisfied with myself?," 22 percent of the fourteen-year-old male group spontaneously mentioned politics It is interesting to note that even among the eleven-year-old boys 6 percent referred to political problems. As in the later American study, girls were much less interested in politics than were boys.

The long-term significance of family environment on political behavior may be seen in the various studies which indicate that between two-thirds and three-quarters of the voters in the United States vote for the same party that their fathers have voted for (Berelson *et al.*, 1954, Lazarsfeld *et al.*, 1944). Part of this relationship, of course, may be explained by factors other than family influence, for most individuals possess the same politically relevant traits as their parents, such as class or religion. The Elmira Study attempted to deal with this problem by comparing people with a given family background who were in a social category that conflicted with their background, such as middle-class people of Democratic parentage, or workers with Republican fathers. In each case, the father's politics proved to be as important a determinant of present vote as the larger social group. In a study of a national sample of college graduates, Haveman and West (1952) found that upward mobile graduates (those earning high income) who came from Democratic families either tended to remain Democrats or, if they broke with family traditions, reported themselves as "independents." Those with Republican backgrounds were much less likely to change at all. Similar findings are reported for samples of the total population (Mayer, 1952). This study also indicates that the extent of political loyalties in the family

depends on the political climate of the community.

It is difficult, if not impossible, to make any reliable estimate, on the basis of empirical evidence, of the age at which politics becomes meaningful to children or youth. Examination of the skimpy research data, plus general agreement by psychologists, anthropologists, and sociologists, leads us, however, to focus on the period of adolescence. This is the period in the life cycle where the individual first encounters strong influences outside of his family and must proceed to define his adult role. The period in which the parent makes all the decisions is almost over and is replaced by a crucial few years in which the youth must make some of the most important decisions of his life.

A number of pre-Hitler German and Austrian psychologists have dealt extensively with the problems of choice faced by adolescents (Buhler, 1929; Lazarsfeld *et al.*, 1931). Spranger (1925) explicitly attempted to tie adolescent psychology to political analysis, and pointed out that adolescents have a tendency to approach life and its problems from a utopian point of view Thus, he said, they view politics from the standpoint of absolute values and reject the view of politics as compromise, as the art of the possible. While these statements may be valid when comparing adolescent views with those of mature adults, it is doubtful that even in Weimar, Germany, more than a small minority of youth had such a complex or purist view of politics as he describes.

Whether political choices and actions are salient in this period, however, will depend to a large extent on the social context of the time and the specific subculture. Students of comparative social systems have, for example, called attention to the great discrepancy between adolescence in pre-Hitler Germany and in the United States (Parsons, 1949). In Germany the combination of an authoritarian family system (Lewin, 1936) and the serious stresses faced by the entire society between 1914 and 1933 seems to have resulted in the emergence of widespread "youth movements," some political, some nationalist, and some simply generational (Becker, 1946; Honigsheim, 1924). New political ideas may have had a strong appeal to youth seeking to find a way to break with their authoritarian fathers and a way to prepare for an uncertain future in an uncertain society (Hartshorne, 1941). Some of the psychological implications of these political youth organizations have been studied in the context of the analysis of a Nazi movie, "Hitlerjunge Quecks," by Bateson (1948).

If we turn to contemporary American society, we find a culture in which young people grow up in an atmosphere of opportunity, one which romanticizes cross-sex relationships and offers an overabundance of leisure-time stimulation through the mass media, professional entertainment, and sports. There are few, if any, significant ideological or intellectual conflicts within American society, and few opinion-molding agencies of the culture are concerned with "putting ideas" into the heads of young people except for the idea of confidence in the American way of life (Lazarsfeld, 1949). In such a context, one would expect to find only a superficial involvement in politics. Nevertheless, the fact that, almost every November, Americans are faced with choosing between two political parties forces the maturing adolescent to identify with one or the other camp. Once made, this choice will be maintained in normal times by most persons for most of their lives and will be changed only by some of those who have also changed their social environment as a consequence of social, geographical, or occupational mobility, or during major social crises.

Using pre-Hitler Germany and contemporary America as extreme examples of the way in which different societies can structure the political environment of adolescence, we should expect what indeed we find, that such variations persist in the behavior of adults. Thus, compared with Europeans, Americans are normally less interested in politics all through their lives. If severity of social crises could be held constant, we would also guess that Americans would be more likely to shift among party allegiances. Poll data from the "stable" European nations such as Great Britain or the Scandinavian countries suggest that this hypothesis is valid.

This emphasis on the different ways adolescent experience can permanently structure political attitudes and behavior clearly suggests the need for intensive empirical analysis of the variations in adolescent experience among persons in the same culture. For example, it is quite clear that adolescence will be experienced differently in the different subcultures of America. The son of a middle-class Negro who is extremely sensitive to the difficulties he will face may develop an early and permanent interest in politics. Similarly, middle-class Jewish youth, unlike middle-class Gentile adolescents, have disproportionately belonged to a variety of "youth movements," political and Zionist. This propensity of Jewish adolescents to join "movements" is undoubtedly related to the fact that Jews as adults are much more concerned with politics. The inception of this concern, for

many Jews, lies in their using politics as a solution to the special stresses faced by adolescent members of minority groups.

Various hypotheses attempting to relate personality needs to political behavior also might be fruitfully examined in the context of adolescence. Is the "introverted" and isolated adolescent attracted to political movements because these groups "want" people and can give him a sense of belonging? A recent study of former Communists suggests that this is so (Krugman, 1952).

The first vote. In most countries the legal recognition of reaching adult status is also marked by permitting the new adult to vote. This demarcation between adolescence and adulthood is, of course, purely arbitrary, but it does give the student of politics the opportunity to analyze two decisions every young adult must make: (1) whether or not to vote, and (2), if yes, which party to support. It is curious, therefore, that the general concern in the social sciences with the decision process has not yet led anyone to focus on first voters as an area of concern.

Two generalizations concerning first voters can definitively be made One is that first voters are much less likely to vote than any other age group, with the possible exception of the very old. Secondly, in the United States at least, most people follow the pattern of their families in casting those first votes.

Earlier in this chapter, in discussing nonvoting, we pointed out that nonvoting increased among groups and individuals when they were faced with cross pressures arising either out of being in contact with persons with opposing viewpoints to their own or of being exposed to conflicting stimuli from the general culture. As a specific hypothesis it was suggested that one reason for the lower vote of American workers as compared with middle-class persons is the fact that workers, predisposed to vote left, are necessarily exposed to some conservative stimuli, are thus subject to more cross pressures than the conservatively predisposed middle class, which is much less likely to receive leftist stimuli.

Similarly, to turn now to first voters, it may be suggested that young voters will be more likely to vote if they grow up within a politically homogeneous environment, whereas those young voters who have been presented with conflicting political stimuli will take longer to decide how to vote and thus will be less likely to vote in their first election. The specific empirical implications of this hypothesis may be observed by comparing recent data on voting by age in two cities: Elmira, New York, and Berlin, Germany. Elmira, a strongly Republican city in upstate New York, is an example of a community in which conservative political stimuli are dominant. In Berlin, on the other hand, working-class parties, especially the Social Democrats, have dominated political life since before World War I. The Social-Democratic Party has remained the major party of the city since 1945 In Elmira, a middle-class youth grows up in an environment in which everything operates to make him a Republican, while a working-class youth receives Democratic stimuli from his class background and Republican pressure from his exposure to the predominant community sentiments and institutions. In Berlin, a working-class young voter will be exposed to an organized and socially legitimate socialist environment, while a middle-class youth will grow up in an environment in which socialism is the approved philosophy of the city and in which the middle classes and their parties were left relatively disorganized following the collapse of the middle-class-backed Nazism.

The studies of voting in Elmira and Berlin enable us to test the hypothesis that voting among young voters is a function of the degree of organization of the larger subgroup of which they are a part and of the extent of exposure to conflicting stimuli. As the data in Table 6 clearly indicate, in Republican Elmira young working-class voters are much less likely to vote than are young middle-class voters; this relationship is reversed in socialist Berlin.

Table 6 demonstrates the complexities involved in attempting to make a statement about the relationship between two factors such as age and nonvoting (Tingsten, 1937). From it we see, first of all, that young people are less likely to vote than are older ones Secondly, when class position is introduced as a qualifying variable, it indicates that the size of the difference between younger and older voters varies with class position. This variation, in turn, depends on certain aspects of the structure of the community in which people live. Thus, in one context, socialist Berlin, the gap between age groups is wide in the middle class and narrow in the working class, whereas in conservative Republican Elmira the relationship is reversed.

Although the data in Table 6 tend to validate the hypothesis that youth will vote when the decision is made for them by a homogeneous environment and will postpone voting when exposed to conflicting stimuli, the fact remains that even among working-class Berliners and

middle-class Elmirans young people vote less than those who are thirty or over One possible further explanation for this phenomenon is that personal associations of young voters do not create as homogeneous an environment as that existing for older people Young people just coming to voting age are also establishing new families, finding their way into new jobs, new neighborhoods, and new associations, all of which provide opportunities for political inconsistencies and conflicts Thus one would expect that more of a young person's close associates would have conflicting opinions than would an older person's, since older people have had the chance to re-establish a homogeneous environment, either by selection or by adjusting to the predominant viewpoint within their primary environment. Evidence of this thesis may also be found in the Elmira study (Berelson *et al.*, 1954), which reports that only half of the first voters agree with the politics of their three best friends, and as many as 40 percent disagree with two or all three of them. This may be contrasted with the group aged thirty-five to forty-four, of whom 69 percent agree with their three best friends and only 12 percent disagree with two or more friends.

From the above propositions and empirical findings, it is possible to deduce the second major finding about first voters, that they will be more likely to exhibit "hereditary" voting patterns — that is, to vote as their fathers do — than are older groups of voters. We should expect this to be so in view of the fact that those young people faced with a conflict in making their first choice tend not to make it. Therefore, those who do actually vote will probably vote consistently with the major factor in their environment, their family. This hypothesis is also borne out by the Elmira data, which report a higher congruence between father's vote and the vote of first voters than for any other age group.

TABLE 6

PERCENTAGES VOTING IN ELMIRA AND IN BERLIN

Elmira — 1948

Birth Year	*Age*	*Business and White-collar*	*Wage workers*
1927-1924	21-24	74	35
1923-1914	25-34	75	65
1913-1894	35-54	85	79
1893 or earlier	55+	80	82

*Berlin — 1950**

		Working-class district Tiergarten	*Middle- and upper-class district Zehlendorf*
1930	20	88.9	67.0
1929	21	92.3	71 8
1928	22	90.9	74.3
1927	23	90 9	72.7
1926	24	92 9	76.7
1925-1921	25-29	92.7	77.5
1920-1916	30-34	94.3	81.7
1915-1911	35-39	94.7	84 9
1910-1906	40-44	95.1	88.4
1905-1901	45-49	94.9	89.0
	All ages	94.1	85.3

*Other working-class districts are similar to Tiergarten, and other middle-class districts are similar to Zehlendorf (Munke and Gurland, 1952, Table E 3, Appendix III, pp. 254-255; Berelson *et al.*, 1954).

Political generations. A number of sociologists in pre-Hitler Germany suggested that the concept of the "generation" had to be added to such structural categories as class or ethnic group to explain political behavior (Karl Mannheim, 1952; Behrendt, 1932; Neumann, 1939, 1942; Heberle, 1951b). They argued that just as men's attitudes differ as a consequence of their being in a different position in the stratification hierarchy, so men also differ as a result of belonging to different generations. Mannheim, a leading exponent of this concept, emphasized that common experiences at a given point — largely, in his opinion, late adolescence — create a common frame of reference within which people of the same age group tend to view their subsequent political experiences.

In fact, those concerned with generations suggest that the political frame of reference in terms of which one first begins to think seriously about politics remains in force for the rest of one's life. Thus, they argue, to understand the basic values underlying the approach of the middle-aged groups who dominate the political life of any given society, one must go back and examine the political climate and problems which existed when they were young. Common experiences such as those deriving from depression, war, prosperity, or dictatorship act as socializing factors.

This focus on the specific political environment of late adolescence is actually a sociological counterpart of the psychological concern with this life-cycle period discussed earlier. The German psychologist Spranger (1925) recognized this problem and began his discussion of adolescent politics by pointing out that "the

political position of youth changes with specific historical circumstances" (p 212).

Unfortunately, there has been no attempt to apply systematically the concept of generations to modern survey research techniques A pre-Hitler student of German society, Arthur Dix (1930), did set up in tabular form the types of data that would be necessary for such research. He broke down the 1930 German electorate into age groupings and then presented data for each group on the political climate surrounding the first election in which they participated, as well as information about those times. From these data, he made assumptions concerning their role in the political events of the 1930's. With survey methods, one could easily test such hypotheses. The data describing the age composition and life experiences of members of the Nazi and Socialist parties tend to confirm some of the hypotheses about the role of different generations in German society (Gerth, 1940).

Some American studies illustrate the usefulness of the generation concept In a study of Negro voting in Harlem in 1944, Morsell (1951) found that 82 percent of the Negroes under forty-four voted for Roosevelt, as compared with 59 percent of those over that age. Many of the older Negroes were still responding to an image of the Republican Party as the party of Lincoln The 1940 and 1944 panel studies reported that younger Catholics were more likely to vote Republican than their elders, while young Protestants were more prone to be Democratic than older ones (Lazarsfeld *et al*, 1944; Korchin, 1946). This finding may be interpreted as an indication of youth's rebelling against parental patterns. An alternative hypothesis is that older Americans responded to the traditional religious basis of party cleavage, whereas younger ones reacted in terms of the class cleavages manifested in the politics of the 1930's Thus young middle-class Catholics became Republicans, while young working-class Protestants became Democrats

Studies of the 1948 and 1952 elections indicate that the new political generation, the first voters, are more Republican than those which immediately preceded them. Thus in Elmira in 1948 only 38 percent of the wage workers aged twenty-one to twenty-four voted for Truman, as compared with 54 percent among those aged twenty-five to thirty-four (Berelson, *et al*, 1954). Harris (1954), using national survey data, reports that 44 percent of the twenty-one to twenty-four age group were for Eisenhower in 1952, while only 38 percent of the twenty-five to thirty-four group preferred the Republican candidate.

These results, it is suggested, may be products of a situation in which persons who came of age during the depression or war have developed Democratic ties, whereas those who know these events only as history and whose first vote was cast in periods of prosperity are turning toward the Republican Party. If, in fact, it is the case that generations tend to vote left or right depending on which group was in the ascendancy during their coming of age, then it may be necessary to reconsider the popularly held idea that conservatism is associated with increasing age The empirical evidence for this belief was gathered during periods of tremendous social instability, the 1930's and 1940's, when youth turned leftist while their elders tended to retain the more conservative beliefs of their youth. If a society should move from prolonged instability to stability, it may well be that older people would retain the leftist ideas of their youth, while the younger generations would adopt conservative philosophies.

Maturity. The focus on adolescence and first voting as determinants of lifetime political behavior does not mean, of course, that later events do not result in changes in political allegiances. Increasing age is often associated with advancement in income or status People marry, change their residences, their jobs, and form new associations. It would seem obvious that such patterned changes in social position would be related to opinion formation and political behavior. As yet, we know little of these processes beyond the fact that the primary political environment of individuals becomes more homogeneous with increasing age.

Unfortunately, public opinion surveys rarely collect much information on variations in past experience of individuals that would enable us to trace through the consequences of differences in long-term experience. The Oakland studies in social mobility, for example, indicate that many people have an extremely varied work history Lipset and Bendix (1952) found that a sample of manual workers over thirty-one years old, as a group, spent 20 percent of their work history in nonmanual positions, those in nonmanual employment indicated that about 25 percent of their work history had been spent in manual employment. What effect do variations in career patterns have on present attitudes? These studies did not deal with political variables, but did treat one behavior pattern which is related to politics, namely, trade-union membership and activity. It was found that the larger the proportion of his career a presently employed manual worker had spent in that category, the more likely he was to be an

active member of his union and, one would guess, to be a Democrat (Lipset and Gordon, 1953).

Other patterned changes related to increasing age are affected by the requirements of family life. Here, impressionistically, we know of many changes that are consequences of family needs For example, there is a tendency for irreligious parents to feel the need to send their children to Sunday School and, in the process, become themselves reintegrated in a religious communion Among middle-class and well-paid working-class parents, children are one of the prime factors related to the move to the suburbs. The concern for the welfare of children may also have more subtle psychological effects. A parent may become aware, often for the first time, of the function of authority mechanisms in society Or, again, children may operate to restrain any propensity to deviant behavior on the part of their parents. No one is more "conservative" or conformist than a young child. This aspect of attitude determination in which the child may force the parents to change has been ignored for the most part by students of the family.

This pattern has been explicitly recognized only in the literature dealing with the relationship between immigrant parents and their American children (Handlin, 1952; Park and Miller, 1927). These studies have called attention to the role of children in Americanizing — changing the attitudes and values of — their parents Northern liberals who move to the South furnish another example of a process which is continually going on. The child whose parents tell him that Negroes are equal is exposed to punishment by the other members of his peer group. If he adapts to the peer group's standards, he is punished at home. Undoubtedly, many parents find it easier to adapt to the community's social or political values than continually to expose their children to punishment. In less obvious ways, similar processes probably occur whenever people with children move from one political environment to another. There has, however, been no research which has attempted to relate dimension of variations in family structure to attitudes and political behavior of adults.

Another indication of the way changing social position, a correlate of increasing age, can affect people's attitudes is furnished by Benney and Geiss (1950), who show that concern with social status grows more marked with age. Thus they find that as people grow older they become more likely to report themselves as middle class rather than working class, holding occupational position constant (Cantril and Buchman, 1953). This greater concern with one's status position may be reflected in political opinions as well.

Old age The great increase in the proportion of elderly people in the population has led experts in various fields to analyze the impact of an aging population on society That the political strength of the aged has already been recognized is evident from the increasing number of public welfare measures that provide pensions for retired people

What effect will an aging population have on the relative strength of liberal and conservative groups? (Davis and Combs, 1950, Pollak, 1943, Fisher, 1950). There are at least two parallel processes going on which may affect the political behavior of the aged. On one hand, as we indicated earlier in the discussion of political generations, people are likely to retain the perspectives and loyalties of their youth. Thus, in the present day, an older population will probably operate to slow down political changes. On the other hand, the aged in modern industrial society are largely an underprivileged group, they have no useful role to perform as they had in rural societies, nor are they well supported by, or integrated into, families. As a group, therefore, they are especially dependent on the state; moreover, because of the rigidity of fixed incomes from pensions or savings, they are more exposed to the effects of inflation than are those with a current bargaining power. Depressions also are likely to affect the aged disproportionately, since the number of jobs available to them on a part-time or full-time basis is probably reduced even more than for the population as a whole, and contributions from relatives also tend to decline.

Such conditions may actually result in the radicalization of part of the aged population. As a have-not group dependent on state support, they may find that only the leftist parties advocate extension of welfare state measures. The growth of mass movements of the aged such as the Townsend Plan is one indication of the propensity of the aged to fight politically for redistribution of the income (Cantril, 1941). The pension movements in the United States have had a tendency to identify with or to cooperate with radical movements of the left or right. During the 1930's the Townsendites worked with some semi-fascist groups, while the Communists were successful in capturing a number of aged groups on the West coast. In Canada, some of the pensioner organizations work with the C.C.F., the socialist party. Pratt (1948) suggests that older persons in small communities in Germany tended to go Nazi. In

Holland, public opinion data indicate that the Communists are more successful than the socialists in winning the support of retired workers (Wieri Beckman Institute, 1951). In Britain, the aged tend to be more pro-Labor Party than the middle aged (Nicholas, 1951), a fact suggesting a shift to Labor by the old, since the Labor Party was small when they first voted. On the other hand, contemporary American, German, and French data suggest that the old in these three countries are disproportionately conservative (Harris, 1954, F.I.P.O., 1952). Without much more data than are presently available on the comparative position of the aged in different societies, it is impossible to interpret these international variations.

The tentative propositions and scanty data presented here cannot pretend to be intellectually satisfying. They do, however, indicate the complexities underlying the simple survey classifications of opinion according to age and the need for explicit research in this whole area.

Votes in the Making — The Panel Technique

In many studies of opinion and decision formation it has proved useful to distinguish three major types of processes. Some attitudes are acquired so early in life that the only question for investigation is how they are preserved and maintained in adulthood. This is the case with certain tastes which might be thought of as inherited, it is also the case with a great part of the norms taken over from parents during childhood, and, as we have seen, for a majority of the American population it is true so far as party allegiances, and therefore voting habits, are concerned. A second type of process involves interests and habits acquired in the course of life, but so slowly and gradually that it is not possible to say just when an individual has "made up his mind." This has been found to characterize occupational choices (Ginzberg *et al.*, 1951) and certain general attitude complexes, such as radicalism and conservatism (Breslaw, 1938). Finally, there are decisions that develop over a relatively short span of time, and these the social scientist can study as they come about. Changes in attitudes and the formation of choices can be observed especially well where similar activities are performed by many individuals, and by most of them repeatedly — buying and voting are typical examples.

The present section is concerned with this final type of short-range decision and, more specifically, with vote decisions. Special techniques have been developed for the study of "votes in the making" during a political campaign. Known as panel studies, they involve a sample of people who are interviewed repeatedly. The first study of this kind was probably that carried out by Stuart Rice (1928) during the 1924 presidential campaign with a group of Dartmouth students serving as his subjects. The first major investigation making use of repeated interviews was carried out by Newcomb (1943), who observed Bennington students over a period of four years. Simultaneously, panel studies were proposed as a basic technique for investigating the psychological dynamics of communications behavior (Lazarsfeld and Fiske, 1938).

During the 1940 presidential campaign, the first large-scale election study was organized. From May until November of that year, a group of investigators from Columbia University remained in Erie County, Ohio, interviewing the same sample of citizens every month (Lazarsfeld, Berelson, and Gaudet, 1944). Since that time, several other political campaigns have been studied in comparable fashion: the 1944 election in a nationwide study carried out by the National Opinion Research Center (Korchin, 1946), the 1948 campaign in another large-scale panel study carried out in Elmira, New York, under the sponsorship of several organizations and universities (Berelson, *et al.*, 1954); the 1950 congressional elections in several regional panels sponsored by a research committee of the American Association of Public Opinion Research, under the direction of William N. McPhee (1952), the 1952 presidential campaign by the Survey Research Institute of the University of Michigan (Campbell, *et al.*, 1954); and the two most recent British elections by teams of British social scientists directed by Benney and Geiss (1950) and Milne (unpublished manuscript), respectively. This considerable experience with political panel studies now makes it possible to assess their basic logic and to evaluate their contribution to our knowledge of voting behavior (Zeisel, 1947; Glock, 1951). In the discussion which follows, most of the concrete examples cited have been taken from the 1948 study in Elmira, New York; but these examples have been chosen to demonstrate rather general results usually found in other panel studies as well.

Parallel to these developments in social psychology, economists have employed what they

call "process analysis" in order to study dynamic phenomena such as business cycles, economic growth, and so on (Samuelson, 1948, Baumol, 1951). The important similarities and differences between panel studies and process analysis are now being investigated along comparative lines One point of immediate relevance is that economists have a longer tradition of representing their ideas in precise, formal terms. It might be helpful, therefore, to start our discussion of the logic of panel procedures with an "arrow scheme" employed by the Dutch economist Tinbergen (1940).

On the horizontal axis of Figure 1 are charted the successive periods of time at which observations are made. On the vertical axis are letters designating the variables under observation. In political studies these variables might be vote intentions, attitudes toward various issues in the campaign, the opinions of family members, and so forth. The arrows in the scheme represent the relations between these variables. Some of these arrows have "time lags", we might want to know, for example, whether an individual's vote intention is affected by what he has read at an earlier time Other arrows relate different variables at the same time period, we might want to find out, for example, whether an individual shares his opinions with his friends. Still other arrows cross several time periods and several variables, for example, exposure to a friend's opinion at time t may be followed by a new way of looking at the campaign at time $t + 1$ and, finally, by a changed vote intention at time $t + 2$.

From this kind of period analysis, econometrists derive systems of formal equations which are rooted in a theoretical tradition as well as in a concern with a limited number of variables. But, for the time being at any rate, the social psychologist must be content with a more descriptive kind of finding. The following example from the 1948 study in Elmira is typical· In June of that year, in the early phases of Truman's campaign for re-election, one thousand prospective voters in Elmira were interviewed about their political interests and intentions. From this representative cross section those who reported that they had voted for Roosevelt in 1944 were selected. Although there are undoubtedly some slight distortions in memory, we can be confident that, for all practical purposes, these are indeed the persons who voted for Roosevelt in the previous election. But in June of 1948 they show considerable disenchantment regarding the current Democratic candidate, only about one-half of this group now intends to vote for the Democratic party. Not all former Roosevelt voters, however, were equally affected by the events intervening between the 1944 election and the 1948 campaign. To test the hypothesis that class sentiments might be related to the differences, an index of "class disposition" was constructed composed of a number of questions regarding attitudes toward labor matters.
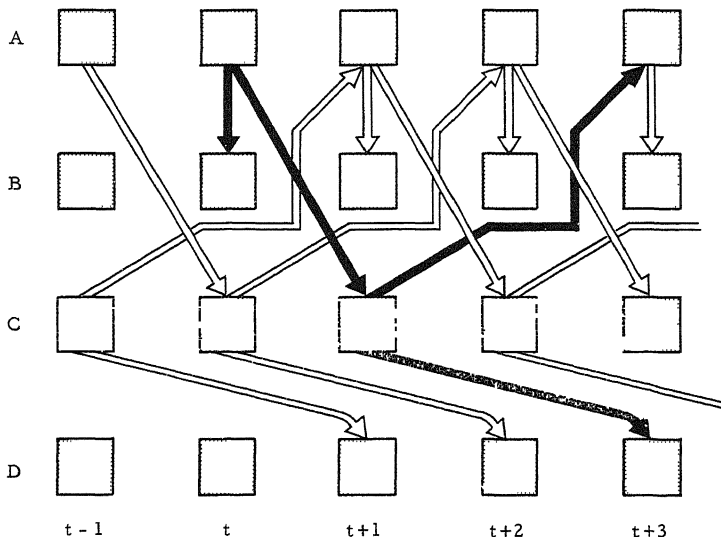
FIG. 1. Arrow scheme.

The first column of Table 7 tells us that those voters who are strongly disposed to the working class remained fairly loyal to Roosevelt's party; the greatest amount of disaffection is found in the middle group which, at the time, did not identify strongly with either the working or the business class. This result may seem somewhat perplexing. Why do we not find the strongest degree of disaffection from the Democratic party among those with a business-class orientation? We may speculate that if individuals with a strong business-class orientation voted for Roosevelt in 1944, it was as a result of some deep conviction, and therefore this group would not be swayed so easily by the wave of disappointment which swept the country during Truman's first administration.

The second column of Table 7 shows how these groups actually voted It will be remembered that between June and November, 1948, Truman conducted a vigorous campaign, criticizing the Congress and aligning himself strongly on the side of labor. The two extreme groups showed about the same degree of Democratic strength in November as they had in the previous June. The ambivalent group, however, seems to have been swayed by Truman's campaign, it is almost as if they felt that, after all, Truman might carry the mantle of Roosevelt Although they had been most disaffected in June, they ended up by providing more Democratic votes in November than did either of the extreme groups

Substantively, this example demonstrates that voters with an ambivalent class identification are less stable in maintaining their party affiliations between elections, and more susceptible to propaganda during a campaign. Formally, the table relates one variable — vote — observed at three times (1944; June, 1948; and November, 1948) to another variable — class identification — observed once. Our interpretation of Table 7 introduced other variables, such as depth of political conviction; but further data would be needed to test the posited relationships of these new variables to those with which we started.

One can hardly overestimate the importance of this kind of process analysis for the clarification of dynamic problems in social psychology. In the following pages, some of the available data on voting decisions will be drawn upon to present, systematically, the main analytical procedures of these panel studies Wherever possible, substantive results will be introduced.

TABLE 7

HOW PEOPLE WITH DIFFERENT BASIC VALUE SYSTEMS DEVELOPED THEIR VOTE INTENTIONS UNDER THE INFLUENCE OF THE CHANGING POLITICAL SCENE

Class identification	*June*	*November*
Working class	70 percent	72 percent
Ambivalent	34	79
Business class	47	53

Note: The figures give the percentage of Democratic vote intention among those who had made up their minds in June and the percentage of Democratic votes among actual voters in November. The specific sample consists of all who reported having voted for Roosevelt in 1944.

THE CRITERION AND ITS TURNOVER

In any specific example of panel analysis, one variable is usually the "criterion" around which the data are organized, although the criterion need not remain the same throughout the study. Suppose respondents are asked at two different times how they intend to vote. The answer might fall into five steps, from a strong intention to vote Republican through a neutral stage into a strong Democratic intention, as shown in Table 8.

A number of observations can be made from such a "turnover table" The marginal row and column show the distribution of vote intentions in August and October, respectively. We see that the proportion of hard-core voters on both ends has increased, but the proportion of "mild" Republicans has decreased. This was a good indication of the dramatic surprise which came

TABLE 8

THE TURNOVER OF VOTING INTENTION BETWEEN TWO INTERVIEWS

	II. October					
I. August	(1)	(2)	(3)	(4)	(5)	Totals I
(1) Republican strong	179	31	22	4	2	238
(2) Republican moderate	63	87	29	8	3	190
(3) Undecided or neutral	8	13	89	9	3	122
(4) Democrat moderate	—	5	17	68	26	116
(5) Democrat strong	1	—	8	8	42	59
Totals II:	251	136	165	97	76	725

about on Election Day of 1948. The second row of the table shows how uncertain this group was and how they moved all over their row between August and October, the mild Democrats, though less in number, showed much greater stability, as can be seen from the fourth row A turnover table is really a bivariate distribution surface which can be characterized in a variety of ways. We observe a great deal of internal movement which is partly compensatory. Only the people in the main diagonal remain constant, those in the right upper corner move toward the Democrats; in the lower left corner they move toward the Republicans. Finer distinctions could be made if the distance moved were taken into consideration. The independence of turnover and net change should be stressed. It could very well be that the two marginal distributions remain the same while a large number of internal compensatory shifts would occur. The turnover itself could be taken as an index of uncertainty, as has been shown by Kendall (1954), who compared such tables under varying experimental conditions.

Would it be sufficient to distinguish only between Republicans and Democrats, or do we need finer gradings, as used in Table 8? The answer depends on the amount of change to be expected. The main purpose of a panel study is to characterize changers, and if only finer gradings give us a sufficient number of them to make any useful analysis, then gradings have to be used. Then, too, the phenomenon we are studying need not be one-dimensional. If we follow the success of a student over a period of years, we might, for example, use five tests covering the humanities, the natural sciences, language performance, and so forth. "Success," then, would be a vector with several components. In the same way, a vote intention might be characterized by several candidates (split voting), or by direction, intensity, and so forth; it therefore would be multidimensional. (All this belongs in a theory of measurement, however, and cannot be pursued further here.)

A variety of indices can be derived from a turnover table. The most basic presentation is to compute for each subgroup obtained at the first interview the proportion of respondents who move into other positions the second time. These "transition probabilities" lend themselves to revealing mathematical treatment. Anderson (1954) has shown, for example, that during a campaign these probabilities remain fairly constant from month to month, except during the conventions, where they may change strongly. Also, in an equilibrium state a member of the minority party is more likely to change than is a majority member. (A concrete example of this is given in the next section.)

THE QUALIFIERS

The first step toward a more sophisticated analysis comes about if we study the change in the criterion between times t and $t + 1$ for groups that are somehow differentiated in terms of information acquired at time t The differentiating characteristic is called the "qualifier" and two main types have to be distinguished:

1. *Constant qualifiers* Sex, national background, for practical purposes, age does not change from one interview to the next.
2. *Time-bound qualifiers:* It is found, for example, that people who at time t are less interested in the campaign are more likely to have their intention changed at time $t + 1$ than people who had a strong interest in the campaign. This analysis disregards, for the moment, the fact that interest itself might change from one interview to the next.

A study of constant qualifiers has led to an interesting and rather general result, which we shall first exemplify by a concrete example. It is well known that Catholics are more likely than Protestants to vote for the Democrats. We extract from the sample of Table 7 these two religious groups and find this corroborated — the large majority of Protestants intend in August to vote Republican, while a majority of Catholics have a Democratic vote intention. (See last column in Table 9.) We now focus on the transition probabilities indicating the change between August and October. (For the sake of simplicity, the five steps of Table 8 have been condensed into three steps, combining "strong" and "mild" intentions.) A Republican vote intention is more stable if held by a Protestant, less stable if held by a Catholic; the reverse is true for a Democratic vote intention. *The qualifying variable which is correlated with the vote intention is also correlated with its stability.*

This has been found in many studies and for most qualifying variables. If a group with characteristic X is more likely to be Republican at the beginning of a campaign, then of all the intended Republicans, those with the characteristic X are more likely to remain and to vote as Republicans. There are, of course, occasional exceptions. But on the other hand, the result has also been found for other activities in progress. For example, young people are more likely to say they want to change their residence than

Table 9

TRANSITION PROBABILITIES FOR VOTE INTENTION BETWEEN TWO INTERVIEWS — CATHOLICS AND PROTESTANTS REPORTED SEPARATELY

		Second interview			
		Republican	Don't know	Democrat	100% — Total No. of cases
Catholics					
First interview	Republican	78	13	9	67
	Don't know	16	66	18	38
	Democrat	3	13	84	96
Protestants					
First interview	Republican	85	12	3	361
	Don't know	18	76	6	84
	Democrat	5	15	80	79

are older people. If we then follow up all those who want to move (in all age groups), we find that a larger proportion of the younger people actually carry out their intention (Rossi, 1952). Social facilitation and correlated variation in the strength of intention probably account for the generality of this rule.

All qualifiers characterize the social and psychological state of a respondent at one specific time. They permit us, therefore, not only to subdivide the respondents by the criterion but to classify them in a variety of ways. For each of these subgroups we can then study separately what became of the criterion — for example, vote intention — at the next time. This type of qualified turnover analysis probably provides at this moment the greater part of the results of panel study. The main ingenuity in study design lies in the anticipation of useful qualifiers. If, for example, we suspect that people influence each other greatly in the formation of opinion, we then need ample data to characterize their social contacts prior to a possible change of opinion which we might observe in later interviews. We shall therefore ask respondents the opinion of their friends, the amount of conversation they have, what they expect their friends to finally do, and so forth. Or a social psychologist might believe that it is not so much the opinions of people that change but rather their feeling about what is salient in specific situations. Then, in a campaign study, questions would be appropriate regarding whether the respondent considers domestic or foreign affairs more important, whether he expects a depression, what he thinks will be the consequences of the outcome of the election, and so forth. In the design of fruitful qualifier questions the role of psychological theory is paramount. At the same time, shrewd guesses at what external events will occur during the next few months are very important. Panel analysis becomes most interesting if people react differently to a sudden event such as a surprising declaration by a candidate or a change in farm prices. But we can explain these differentiated reactions only if we have relevant information on the respondents prior to the event. At this point the difference between constant and time-bound qualifiers becomes relevant, for, with the latter, what the respondents tell us after the event might be influenced by it and cannot be used safely for dynamic analysis.

Here, again, one rather general finding is most characteristic and it centers around the notion of cross pressures, a set of qualifying characteristics of which some, in the light of general knowledge or of specific empirical data, are correlated with inclinations toward one party while others are associated with leanings toward the other party. Two major types of cross pressures have been investigated: ideological and social. An ideological cross pressure exists if a respondent approves of a series of "contradictory" issues — he might, for example, like the economic features of the New Deal but remain an isolationist. It is usually possible to construct an ideological cross-pressure index

and to show that respondents with a high score show all sorts of characteristic reactions they either change their vote intention very often, do not vote at all, or are swayed in the final vote by quite accidental and politically irrelevant episodes (Dinerman, 1949). Social cross pressures have very much the same effect. They come about, for example, when people have friends with varying political convictions or in the rare cases when family members disagree. A very interesting aspect of these cross pressures will be mentioned later in some detail: during a campaign people have a tendency to reduce them either by harmonizing their opinions on specific issues or by changing their opinions and intentions in the direction taken by the majority in their social environment. The study of how this increased homogeneity comes about is one of the main tasks of panel analysis and it has an obvious relation to current experiments in social psychology. Assertive individuals play a role in expressing themselves more strongly than others and therefore act as opinion leaders even if they do not have special social prestige The creation of norms through mutual interaction can be observed.

Panel analysis can make an important logical contribution to this specific subject matter. Using the arrow scheme mentioned above, it is clear that we can relate the distribution of attitudes for a whole group at time t to the attitude of a single individual at time $t + 1$. This relation, which can be given a clear mathematical formulation, helps greatly to clarify some rather confusing discussion on the relation between individuals and collectives.

Because of the expense and time involved in any panel study, the amount of accumulated data on the foregoing points is still regrettably small. But even some of the more logical aspects are still very much in need of clarification. Outstanding here is the comparison between panel analysis and controlled experiments. In principle, a controlled experiment has a simple logical structure. We have two matched groups, one of which is exposed to a stimulus If the exposed group shows a change in attitude, then we attribute this change to the stimulus as a cause. In panel analysis we have different types of people, distinguished by a set of qualifiers, and again we see a change in attitude for some of them But in no comparisons are the subgroups completely matched When we say that cross pressures "cause" delay in time of decision, we could test this by creating cross pressures experimentally. But then we would be deciding who experiences the cross pressures, while in actual cases they are already determined by a previous process For some time, writers have tried to clarify this type of process analysis, which lies logically between controlled experiments and simple correlation analysis. Wright (1921) was probably the first to develop a method "by which the knowledge we have in regard to causal relations may be combined with the knowledge . . . of correlation" (p. 559). Recently, Simon (1953) has developed the idea of "causal ordering" which "refers to a model — a system of equations, and not to the real world the model purports to describe" (p. 51). In the interim, Mowbray (1941) has given a good exposition of this combination of empirical analysis and *a priori* assumptions on the structural relationship between variables. Any investigator who discusses causal relationship might mean a variety of things, it would be up to the collaboration between the investigator and a logician to work toward translating his specific ideas into the formalism of process and panel analysis. These remarks should be considered a call for further collaboration rather than as a positive statement.

A full qualifier analysis proceeds in a series of steps until all pertinent information is exhausted. This does not mean, however, that it is always necessary to proceed to the last details. Where to stop is a matter of judgment which will be made more wisely, the clearer the analyst is about the implications of each step. The following case exemplifies the issue.

Respondents are asked whom they expect to win, and their answers are divided into Republican and non-Republican expectations. (In 1948 so few people expected Truman to win that the undecided respondents had to be classified with those who had Democratic expectations) Expectation is this time our criterion variable and vote intention will be used as qualifier. We are not surprised to find, in August, that expectation and intention are related. Ninety percent of the Republicans (by intention) expected Dewey to win, while only 44 percent of the Democrats did In a first step of panel analysis we can show that this relationship becomes somewhat stronger as the campaign progresses. At the second interview in October, 92 percent of the August Republicans expect their candidate to win, while only 37 percent of the Democrats give their opponent this chance. There is an increased interrelation between expectation and intention or, in different terms, the Republicans become increasingly certain that Dewey will win, the non-Republicans become increasingly dubious. But this form of the analysis does not bring out how strongly vote intention at Time 1 (August)

affects changes in winner expectation between Time 1 and Time 2 (October). Still, this is an interesting result for the social psychologist because it suggests a double interpretation individuals project their own intention into what they expect others to do, and individuals develop expectations on the basis of observing their primary environment, their friends and family members, who indeed are likely to change simultaneously in the same direction.

A further step of panel analysis shows the facts in more detail. We now divide people at Time 1 into four groups according to the criterion (winner expectation), as well as according to the qualifier (vote intention). (Here "strength" of intention is not considered, and the respondents who do not intend to vote and who were included in the middle group in the previous two tables are excluded.)

The reader is invited to see how, in various ways, Table 10 expresses the effect of intention upon expectation. Formally speaking, this step of a qualifier analysis is equivalent to the one discussed at the beginning of this section. By combining the figures in different ways, however, various aspects of the subject matter can be highlighted. For non-Republicans, for example, the "projective effect" is stronger than for the Republicans, in the last column of Table 10 the difference between the first two figures is considerably smaller than that between the last two Probably the minority in a Republican community were less certain of their position, especially in an election in which everyone expected the Republicans to win.

Let us emphasize once more the distinction between a panel *finding* and its *interpretation*. It is highlighted by an eloquent criticism by Asch (1952). While he testifies to the practical utility of panel studies, he questions "the adequacy of such data for psychological analysis." He advances six arguments. panel studies neglect the individual; their results are time-bound to a specific historical situation; they use only sociological variables, they do not explain deviate cases, they lead to prediction, rather than to understanding, and they do not clarify "psychological processes." The first point is correct by definition. The second point is true for all psychological findings which are in any way relative to a cultural or historical context; some implications of this fact for voting studies will be discussed in the third section of this chapter The next two objections seem to be attributable to the critic's restricted awareness of the available material. Panel studies certainly include variables such as expectation, perception, interpersonal relations, and the like; no one who reviews the type of findings discussed here can seriously exclude them from the traditional body of psychological propositions. As to deviant cases, the misunderstanding is even more obvious: by design and necessity, as we introduce more variables and cross tabulations, we progressively clarify the behavior of respondents which appeared as deviant on a simpler level of analysis. The limit here is only the size of the sample and the adequacy of the variables.

The fifth point, prediction *vs.* understanding, would lead into a discussion of causality concepts which we are trying to curtail in the present discussion. The crucial issue is the sixth, which Asch formulates in a variety of ways· the panel analyst does not clarify "the processes that intervene between condition and consequences," he does not give the "meaningful nexus between his variables," and so forth. This is indeed a difficult question. Whatever interrelations we find, we can always go one step further and interpret them speculatively. Sometimes this leads to new variables that can be introduced into future panel studies. Sometimes, however, it leads to the introduction of "mechanisms"

TABLE 10

THE EFFECT OF VOTE INTENTION AT TIME 1 UPON WINNER EXPECTATION AT TIME 2, IF PREVIOUS EXPECTATION IS TAKEN INTO ACCOUNT

Time 1 Expectation	Time 1 Intention	No. of cases	Time 2 Percentage with Republican expectation
Republican	Republican	341	94
Republican	Non-Republican	119	72
Non-Republican	Republican	34	80
Non-Republican	Non-Republican	86	30

such as projection, frustration, and the like. How are they related to the analysis of discrete observations through time? Lazarsfeld and Merton (1954) have debated this issue, but it remains a moot one and deserves further attention. Here we shall restrict ourselves to the simpler question of testing the mediating role of a variable. We choose as an example the role of friends, reading matter, and other "exposures" in the course of a voting decision.

THE EFFECT OF EXPOSURE TO COMMUNICATIONS, PERSONS, AND EVENTS

It has often been said that we live in a manipulative world in which propagandists of all kinds determine our decisions. For the propagandist, this idea has an ironical tinge. He undoubtedly tries to manipulate people, but in many cases he never finds out whether or not he has succeeded. Panel studies have become one of the means by which the success of "campaigns" can be evaluated. The United Nations (Star and Hughes, 1950), a television network (NBC, 1953), a major trade association, and several others have applied the type of analysis we are about to discuss here. There are three problems that deserve attention in the present context. They are best exemplified by beginning with a concrete and fairly typical case. In the 1948 election study each respondent was asked if he had been visited by a party worker or had received in the mail literature from one of the two major parties. One of the problems was to ascertain whether exposure of this type increased the interest in the election. Interest, therefore, served as the criterion variable, it was ascertained at every interview and "measured" by the simple device of asking respondents if they had a great deal, some, or no interest in the campaign. Table 11 gives all the findings that can be obtained from a typical panel analysis in such a case.

This table is a typical qualifier table, with one difference. The exposure, the effect of which is to be tested, came about before the second, and after the first, interview. Dividing respondents according to the extent of their exposure to a specified kind of propaganda raises no problem of principle, but it is technically very difficult indeed. To ask respondents retrospective questions at the second interview, as was done in this case, may lead to memory distortions not easily detected even by refined analysis. The proper method is undoubtedly to get some information on exposure *between* the two interviews. For this, the tried techniques developed to measure the size of audiences to mass media are appropriate, but they are very expensive. Special problems of time sampling are added if we do not deal with the effect of a specific television speech or pamphlet, for example, but with the effect of a campaign which went on over a considerable period of time. The matter of measuring exposure in mass-media research is dealt with elsewhere in this handbook (Chapter 28). For the present purpose, we are concerned only with the analysis of the findings after they have been collected. Thus we shall assume that exposure has been ascertained in a reasonably reliable way.

Under this assumption, Table 11 shows that exposure to party propaganda increases interest mainly in individuals whose interest in the campaign has been at a medium level at the beginning. Among the "contacted" respondents in this group, three times as many have increased as have decreased their interest, among the respondents who were not "contacted" we find an equal number drifting in both directions from their previous interest class. The small

TABLE 11

THE COMBINED EFFECT OF PERSONAL AND IMPERSONAL PARTY CONTACT UPON LEVEL OF INTEREST

Interest level in October	Interest level in August: High		Medium		Low	
	Contacted	Not contacted	Contacted	Not contacted	Contacted	Not contacted
High	67%	58%	42%	25%	5%	8%
Medium	26	29	44	52	26	18
Low	7	13	14	23	69	74
	100% ($n = 81$)	100% ($n = 192$)	100% ($n = 69$)	100% ($n = 207$)	100% ($n = 43$)	100% ($n = 158$)

differences in the other two groups are not significant.

This is a good point at which to touch once more on the question, Does exposure to party contacts "cause" increase of interest? If "cause" is used in the sense of a controlled experiment, then two objections can be raised. One pertains to the danger of spurious factors. The party machine might, for example, have a tendency to approach the more highly educated people, and these, in turn, might in any case show increased interest as the campaign proceeds. By proper consideration of education as a further variable in the statistical analysis, this specific possibility can, of course, be tested. But it is well known that survey analysis, however refined, can only approximate and never reach the certainty of a controlled experiment.

It could be argued that a great amount of matching of groups has been done implicitly by dealing separately with subgroups which are homogeneous in interest, as ascertained at the first interview. This is undoubtedly correct and is one great advantage of this type of panel analysis. However, here a second argument follows. We are dealing, after all, with broad interest classes. Perhaps, if we used a much finer interest measure, the two subgroups in the medium class would really be different in their original interest. Here, again, only additional data could tell us whether this objection is justified.

The real problem lies, however, as mentioned before, in the whole meaning of the term "cause." Panel analysis might even have an advantage over the controlled experiment. In the field of educational broadcasting the following observation has been made. As long as we test a program in the laboratory we always find that it has great effect on the attitudes and interests of the experimental subjects. But when we put the program on as a regular broadcast, we then note that the people who are most influenced in the laboratory test are those who, in a realistic situation, do not listen to the program. The controlled experiment always greatly overrates effects, as compared with those that really occur, because of the self-selection of audiences.

A panel analysis, such as is shown in Table 11, takes both factors into consideration. From the last line we note that the higher the interest of the respondents, the more likely they are to be "contacted" by party workers (we omit the obvious possibility that selective memory plays a role here). The remainder of the table shows that in the medium-interest group, *if* respondents are "contacted" interest is increased. We have before us, then, a chain of events in which exposure is not arbitrarily introduced by laboratory procedures, but where it is itself *a consequence of a preceding configuration and, in turn, engenders new consequences.* It is this interrelation of variables over time which is the essence of a process and the focus of panel research. How it is related to the logic of controlled experiments, and under what conditions it has comparative advantages and disadvantages, must be left to future discussion Before we proceed to further elaboration of analytical procedure, a few substantive remarks are appropriate

From the studies carried out during presidential and some off-year congressional elections, at least three general findings can be culled. It seems that, in general, the influence of the mass media of communication over short periods of time is fairly small. This is attributable mainly to the *self-selection of audiences* mentioned before — most people expose themselves, most of the time, to the kind of propaganda with which they agree to begin with. Statistically, this result comes out so clearly that it has tended to divert attention from the deviant cases which are of obvious importance (Kendall and Wolf, 1949). In future studies more attention should be paid to the study of the small but important number who are reached by an opponent's propaganda.

At the same time, the paramount *importance of people* has stood out in all studies. There can be little doubt that many more vote decisions are affected by relatives or acquaintances than by any formal type of propaganda. This raises two important questions, however. Substantively, these personal influences might well cover certain indirect facts of party propaganda. There is some indication of a two-step flow of communication: the mass media might first reach opinion leaders and from them, by word of mouth, reach larger proportions of the population. In a formal sense, the idea that "people are most influenced by people" deserves more careful scrutiny. Such a statement reflects our sampling and interviewing procedures. What we really should say is that people in our sample are influenced by people not in our sample; if we had a complete enumeration, we would have been able to say which people influence each other. To formulate this situation precisely, so that it can be subjected to empirical test, would require interaction models which are not easy to handle mathematically or to test empirically. Nevertheless, this is certainly another line which future research will have to stress.

A few panel studies have been done in off-year congressional elections. On these occasions

party lines are less frozen, more new decisions have to be made, and the student can therefore follow through more diversified observations. Among the available data the most noteworthy observations come from a series of studies which William McPhee and his associates made in 1952. They compared congressional districts which differed mainly according to the propaganda lines which the leading candidates took — for example, one stressed foreign, and another domestic, economic issues. They found that in the course of the campaign the voters changed considerably in regard to what they considered the important issues of the day. Thus, the most immediate effect of political propaganda is upon the voters' feeling of *saliency* of issues Short-term propaganda probably does not affect people's attitudes greatly, but it can well affect the way they see a concrete electoral situation and, by changing its "hook-up" with an existing attitude structure, might well affect their final decision. This, again, is a process going on in time, and therefore the panel technique should be able to clarify it further by investigating more carefully the mutual interactions between propaganda exposure, attitudes, and feelings of saliency. This leads naturally to the question of how such mutual interaction is best analyzed. But first a methodological digression is needed to round out the discussion of qualifier analysis

PANEL AND TREND ANALYSIS

We started with one criterion variable ascertained at two time periods and noted that the analysis of turnover provided useful insights and raised problems of measurement and index formation. We then proceeded to the study of qualifier turnover, distinguishing three main types of qualifiers. After having given so many concrete examples, it might be useful to present a schematic outline showing clearly how the procedure differs from the study of a sequence of cross-sectional polls (trend analysis). Suppose someone reported that party contact did not change interest because he had found the results presented in Table 12. He divided the respondents into "contacted" and "not contacted" groups and ascertained their interest prior and subsequent to exposure. His argument goes as follows: before contact, 50 percent had high interest, and after contact this proportion remained the same; this is true for both the "contacted" and the "not contacted" groups.

The marginals of the two parts of Table 12 are all we would get from two polls and they support the argument that party contact is inefficient. But the repeated interviewing of the same respondents permits us to consider turnover, and now the picture changes. We focus on the first row in the two partial fourfold tables and thereby consider only those respondents whose interest was high to begin with. Now we see that of the "contacted" group 60 percent retain high interest, whereas in the "not contacted" group only 40 percent do so. Thus contact has a preserving effect on initial interest. Inversely, we find that people with originally low interest are negatively affected by party contact (perhaps because they find it annoying). The *differential effect* of contact on the two interest groups was obscured by considering them together. The reader might find it instructive to play with this scheme in various ways. It is quite possible, for example, to fill in figures by which, for the whole group, exposure seems to have a negative effect, while still having a positive effect for both interest groups sepa-

TABLE 12

A PANEL SCHEME SHOWING THAT EFFECT OF PARTY CONTACT FOR A WHOLE GROUP CAN BE THE "SUM" OF VERY DIFFERENT EFFECTS, IF SUBGROUPS ARE SEPARATED ACCORDING TO THE FIRST INTERVIEW

3. Contacted		2. Second interview: High interest	2. Second interview: Low interest	
1. First interview	High interest	30	20	50
	Low interest	20	30	50
		50	50	100

3. Not contacted		2. Second interview: High interest	2. Second interview: Low interest	
1. First interview	High interest	20	30	50
	Low interest	30	20	50
		50	50	100

rately. (The formula which controls these rather intricate relationships has been reported in Kendall and Lazarsfeld, 1950)

The following generalizations result from a systematic comparison of panel and trend data:

1. If we want to know whether the qualifier has a differential effect, of the type exemplified in Table 12, we always have to inspect turnover data.
2. Qualified turnover could also be called *split correlation* to distinguish it from partial correlation. In the case of Table 12, for example, partial correlation would give us the *average* effect of exposure on the two initial interest groups, and again conceal the main finding. A clear distinction between average and split correlation has become important in social research, while in traditional psychometrics it has rarely been considered. (The distinction is not related to any specific coefficients by which correlations for qualitative data might be described)
3. Sometimes we are interested only in average effects, but then we still have to guard against distortions which can result from a correlation between the qualifier (variable 3) and the *initial* value of the criterion variable (variable 1). Let the latter be symbolized by [13]; let T stand for the *trend effect,* to wit, difference in trend between exposed and not-exposed respondents; let E stand for the *average qualified effect,* if the initial value of the criterion variable is taken into account. Then, leaving aside minor coefficients, the relation is $T = E - [13]$ In our example an initial positive correlation between exposure and interest could, therefore, well conceal effective exposure if only trend data were considered.

These general rules permit us to judge fairly quickly when — in the light of a specific problem or of a given set of data — trend analysis gives sufficient information. Table 7 is a typical example of a revealing trend analysis. Our discussion of the example leading to Table 10 can be recast in terms of the present formalization: trend analysis would have underestimated the average effect of vote intention on winner expectation because of the initial correlation between the two variables; it would have concealed the fact that Republicans showed the effect less than did non-Republicans.

In all panel analysis the criterion variable is observed repeatedly for each respondent; the qualifier permits us to subdivide the results in a significant way. But time-bound qualifiers are themselves subject to change from one time period to the next. If this is taken into account, then the analyst faces the task of relating to each other the changes of several variables over time.

CONCURRENT CHANGE AND MUTUAL INTERACTION

The simplest way to study concurrent change would be merely to compare two or more trend lines. It was found in the 1948 campaign, for example, that between August and October more manual workers intended to vote for Truman and that more of them felt that economic problems were the salient issue in the campaign. Strictly speaking, this is not process analysis, because we neither relate two variables nor do we relate information obtained at different periods in the way indicated by our initial diagram Findings such as these could also be obtained from a series of cross-sectional polls taken each time with different representative samples But if the data are obtained from repeated observations, more refined analysis is possible. We can then determine, for example, whether the people for whom the economic issues became more salient are also those who changed from initial opposition to partisanship of Truman. This still leaves open the question of whether their changed view of the election made them more favorable to Truman or whether their changed view of the candidate made them accept his interpretation of the situation. An answer to this question would have to come, in part, from additional information — for example, information regarding the influences to which respondents were exposed between the two time periods. At the moment, however, we want to restrict ourselves to the amount of insight which can be gained if we deal only with two variables observed at two times, but making use of all possible interrelations.

We choose for our main example a small sample of respondents interviewed twice during the campaign of 1940. At that time, Willkie had emerged as a new political figure and citizens of various political persuasions had to make up their minds about him. Whether they liked Willkie as a person was, of course, closely related to their vote intention; still, early in the campaign but immediately after the conventions (August), this relation was not as strong as it was two months later. The number of

TABLE 13

CONCURRENT CHANGE IN VOTE INTENTION AND PERSONAL LIKING FOR WILLKIE
(Erie County, Ohio, 1940 Election)

			Second interview				
		Party	+	+	−	−	Total
		Willkie attitude	+	−	+	−	
First interview	(++)	Republican for Willkie	129	3	1	2	135
	(+−)	Republican against Willkie	11	23	0	1	35
	(−+)	Democrat for Willkie	1	0	12	11	24
	(−−)	Democrat against Willkie	1	1	2	68	72
		Total	142	27	15	82	266

"divergent" cases declined from 59 to 42, as can be seen from the marginals of Table 13. The same table contains all the combinations that can be derived from our basic information, and is known as a sixteenfold table. (The data were collected in Erie County, Ohio, which at the time had only a slight Republican majority. In Table 13, however, all the "don't know" cases are excluded; these are more likely to come from the poorer-educated Democratic groups, a fact of great generality which the political survey analyst must always keep in mind)

The complete analysis of a sixteenfold table can proceed in many directions because it covers, as special cases, all the simpler approaches we have discussed so far. Here we wish to concentrate on one essentially new feature which is related to the following problem. If people have a tendency to "harmonize" their attitudes as the campaign goes on, in which direction do they move — do they adjust a specific opinion to their vote intention or does the process go the other way? The crucial answer comes from the twenty-four cases which are characterized as follows: They are "divergent" at the first interview in the sense that they are not following the majority pattern — Democrats who are for Willkie and Republicans who are against him. At the second interview they are "in harmony" — their opinions and attitudes match. In an obvious symbolism their pattern is as indicated in Table 14. It is easily seen that the majority of this small but critical group retains its vote intention and adjusts its opinion about Willkie. Party loyalty is more deep-rooted than is the attitude toward a newly emerging political figure. This kind of analysis points to a general procedure which formalizes and therefore clarifies the old notion of *relative strength or depth of a series of attitudes*. From the 1940 election panel, data are available on the following issues:

Vote Intention
Personal liking of Roosevelt
Personal liking of Willkie
Attitude toward the third term
Opinion on the importance of government *vs.* business experience in a president

On these five issues 10 sixteenfold tables similar to Table 13 can be set up. The argument following Table 14 may then be translated into an index to express the "relative strength" of the two variables in each pair. The details of this index will be omitted here, suffice it to say that the index takes into account the stability of each variable separately and that the more change in one variable is influenced by change in another, the larger the index will be.

We can now turn to the actual relations found between the five attitudes listed above. As was to be expected, each attitude was found to be correlated — to a greater or lesser extent — with every other attitude in the group. It was also found that all the correlations were higher at

TABLE 14

THE RESPONSE PATTERN OF PEOPLE WHO "HARMONIZE" THEIR ATTITUDES BETWEEN TWO INTERVIEWS

		Second interview	
		++	−−
First interview	+−	11	1
	−+	1	11

the second than at the first interview. (The only exception was the correlation between "vote intention" and "third-term opinion," which remained constant, as it was already exceptionally high at the first interview.) As the campaign progressed, the voters developed increasingly consistent attitude patterns, adjusting many conflicting opinions to the general pattern. By evaluating a mutual effect index between the various attitudes, we can determine the relative importance of each of the attitudes in establishing the final pattern. Table 15 gives the "relative" strength for each pair of attitudes in the group A positive sign indicates that the attitude in the row is stronger than the one in columns; a negative sign reverses this relation

We see that a definite rank order of importance emerges for the attitudes· each variable is stronger than every variable below it in the chain and weaker than every variable above it The complex aggregate of attitudes making up party loyalty, and thus vote intention, is stronger than any single campaign issue. That is, in the 1940 campaign a person's vote was not determined by his opinion on any one of the specific campaign issues, but his opinions on these issues were, rather, determined by his party loyalty. This does not mean, of course, that the sum total of the various issues did not have an important effect on the final vote It simply means that there was no single, outstanding issue which determined the outcome of the election

Of all the various issues, those connected more or less directly with the person of President Roosevelt were the most important. "Opinion of Roosevelt as a President" was the strongest of any of the attitudes. Next comes "Opinion on the Third-Term Question," which was itself determined largely by both "Vote Intention," i.e, party loyalty, and "Opinion on Roosevelt." "Opinion of Willkie as President" was much less important, as we should expect, since Willkie was comparatively unknown.

The "Government *vs.* Business Experience" question is shown to be a trumped-up issue, it is by far the weakest of all the attitudes analyzed; at the same time, it is highly correlated with "Vote Intention," and thus people made up their minds on this issue almost entirely on the basis of their previously established party loyalty. On this point an interesting corroboration was found eight years later. In 1940 the Republicans had a businessman as candidate and the Democrats a political figure; in 1948 both candidates came from a background of political experience. In 1948 the voters for both parties agreed that politicians were all right, while in 1940 Republicans judged a businessman to be much more desirable.

One other fact emerges clearly from the rank order of importance of the various attitudes. definite, specific attitudes of satisfaction or dissatisfaction with the actions of the administration — as expressed, for instance, in "Roosevelt Opinion" — are more important than more general, theoretical "principles," which apparently are usually projected largely to rationalize already existing attitudes. We see this first from the fact that the more theoretical third-term attitude is weaker than the more specific "Roosevelt Opinion" and again from the unimportance of the "Government *vs.* Business Experience" question. One might generalize from this that people derive their ideologies from their specific needs rather than adapt their specific action to their ideology.

This concludes the general discussion of

TABLE 15

RELATIVE STRENGTH OF FIVE ATTITUDES

Strength of: (in order of strength relative to vote intention)	Vote intention	Roosevelt opinion	Third-term opinion	Willkie opinion	Government *vs.* business experience
Vote intention	—	+ 029	+.037	+.129	+.144
Roosevelt opinion	−.029	—	+.052	+.067	+.101
Third-term opinion	−.037	−.052	—	+.025	+.090
Willkie opinion	−.129	− 067	−.025	—	+.079
Government *vs.* business experience	−.144	−.101	− 090	+.079	—

panel analysis, as far as two interviews go If we have a larger number of periods, we do not find anything basically new. We can look at them as chains, composed of sequences like those we have summarized in the preceding survey. The ensuing complexity of data might force us into summarizing procedures which, however, raise technical rather than theoretical problems. But there remains a question which goes beyond the formal discussion on which we have focused so far. What are the relevant variables we are likely to find useful when we study votes in the making? This brings us to some general considerations of the voting decision as a topic of concern for the social psychologist.

SOME GENERAL OBSERVATIONS ON THE VOTING DECISION

In one way, campaign studies provide information only on the people who show change over a period of a few months; this is undoubtedly a minority of voters, as we know from our earlier discussion. But the people who remain steadfast in their vote intentions throughout the campaign are not just dead weight which the study must carry along. A comparison between the two groups gives some indication of the type of voter affected by short-term propaganda. We know, for example, that it is the less interested and politically less concerned voter who enters the campaign period uncommitted. Rare indeed are the cases where people who really follow political events day by day wait for the election period to make up their minds. The so-called independent voter is a small minority, compared with the apathetic voter (McPhee *et al*, 1952; Eldersveld, 1952).

Shifts in the electorate, if they happen at all, come about mostly in the years between elections. As a matter of fact, some evidence can be produced, similar to Table 7, showing that the presidential campaign is likely to have a regressive effect. There has been over the last ten years, for example, a slow shift of Catholic voters to the Republican party (Harris, 1954). But at election time, this trend is slowed up and quite a number of rebellious Catholics return to the Democratic fold. The respondents are farthest away from their previous vote at the beginning of the campaign, and in their final vote come much closer to the position they took four years before. As a part of this general observation, it will also be found that third parties are usually strongest at the beginning of a campaign and slowly lose their strength when the reality of Election Day approaches (Rice, 1928; Gallup, 1948). This finding, incidentally, has implications for the effects of electoral propaganda. Most of its value lies in the reinforcing effect it has upon voters It does not so much engender change as it keeps people in the fold.

We have stressed repeatedly that the success of a panel study depends largely upon the ingenuity the investigator uses in introducing relevant variables into his time series. It cannot be said that we have at the present time a general theory from which the most relevant variables can be deduced. But sometimes one finds in current literature categories and ideas that apply to human actions in general and therefore provide leads when it comes to the design of panel studies The following three examples, given without any effort at precision, are characteristic.

Acts may differ according to the degree of their ego involvement, that is, the extent to which they are important for a person's self-respect and need for status (Sherif, 1948). We do know, in a general way, that decisions which are not ego involved are more easily influenced from the outside, a fact which explains the great success of commercial advertising as compared with the failure of many campaigns to improve race relations or attitudes toward international issues (Wiebe, 1951). Applied to a voting study, we usually can ascertain a person's involvement in political affairs and his interest in a specific election. Robinson (1952) has analyzed panel data with the help of factor analysis and found three types of interest. Some view a campaign as spectators at a race, others have intellectual-ideological involvement, and a third group includes those who really participate and have an involvement in the political machine More precise information on the distribution of these types would be of importance to anyone concerned with the workings of the democratic process in this country. The large amount of nonvoting which characterizes American elections, as compared with those in Europe, indicates a low ego involvement on the part of a majority of voters.

Introduced into panel studies, indices of interest play a controlling role. People with high interest, for example, show a higher consistency of attitudes, therefore experience fewer cross pressures, and are consequently more stable in their vote intention. They also expose themselves to more propaganda but are less influenced by it than respondents with low interest. Citizens with high interest are also more likely to influence their fellows, irrespective of the social position they themselves have.

It is characteristic of the voting act that many

perform it, not because of any direct ego involvement, but because the social pressure to vote is so great: This is possible because, in a manner of speaking, it does not cost anything to vote — in sharp contrast to buying and to most other actions that require some sacrifice of time, or at least of some other desirable alternative. The fact that it costs nothing to vote might help to explain both the rather mechanical permanency of party affiliations and the apathy of those who have not acquired such affiliations. But one might speculate that at a time of great excitement created by the efforts of the professional politicians, many people would feel ridiculous if they realized that they do perform a seemingly important act without any sacrifices or investment.

The voter has to give some meaning to the election, and it is the task of panel studies to see how he does this and what role his formulation plays in the decision process. Literature on the *frame of reference* becomes relevant here (Newcomb, 1950). At each interview we must find out how the respondents perceive the candidates and the issues at that moment. These perceptive elements are most likely to change, as was mentioned earlier. A number of studies have applied factor analysis to data on attitudes toward electoral issues. A summary of these studies is given by Williams (1952). Reinterpretation of the findings shows, generally, two factors, one of which might be called "economic concern" and the other "concern with style of life." Certain issues, such as prohibition, and certain personalities, such as Eisenhower, symbolize the idea that a vote can become something like an affirmation of a cherished value, irrespective of the actual consequences the election will have. In many discussions of voting by political scientists, the importance of rational and economic interests related to the consequences of the election is probably overestimated as compared with the symbolic aspect concerning style of life and values.

Still another way to classify actions is according to the *visibility* of their *consequences*. If we choose a piece of candy, we can, simply by putting it in our mouths, know whether we like it or not, if we buy a suit, it might be several months before we can tell whether our choice was wise. The visibility of consequences of the voting act is obviously very slight, and the voters are very much aware of this fact. Voters do not feel that their vote affects the result, they do not feel that there is much difference between the parties, and they do not think that the role of a president is very decisive in the history of the country. This is especially relevant when it comes to interpreting the reactions to the outcome of the election, which, in a panel study, are obtained in the last interview, after Election Day. There is a strong tendency toward reconciliation. People who opposed a candidate bitterly a few weeks earlier will now feel that, after all, he might be as good a choice as any other. Again, this has obvious implications for the workings of the democratic process

Let it be stressed once more that there is a real difficulty in relating empirical decision studies to general work in social psychology. What the students of political behavior require is a social psychology phrased in terms of distinct variables which can be related through time by analytical procedures of the kind this section has tried to exemplify. In some cases the bridge has been established We can find out what a respondent's reference group is at a certain moment. The idea of a tendency toward cognitive constancy in the "self-preservation of beliefs and attitudes" proposed by Krech and Crutchfield (1948) can be tested through the trend toward decreasing ideological cross pressures mentioned before In most cases, however, the "principles" of social psychologists are too vague to be translated into the concrete terms of an empirical panel study. The problem is not to use them as interpretations after the fact, but as sources of items in a questionnaire which subsequently enrich the analysis of the findings. Undoubtedly, part of the difficulty lies in the fact that the formal logic of a process analysis is not too easily perceived This section endeavored to bring it to the attention of the systematizing social psychologist for the sake of both better empirical work and more explicit theorizing.

The Historical Context

Political scientists and historians have sometimes objected to the explanations of political behavior presented by social psychologists as overemphasizing the effects of the present social position upon vote decisions. They argue, in effect, that the political *decision* of an individual, group, or area is often made long before the specific election under study, and that political research which ignores the dimension of history does violence to the study of political behavior. As Joseph Schumpeter (1953) has put it:

> No decade in the history of politics, religion, technology, painting, poetry and what not ever

> contains its own explanation. In order to understand the events [of various given periods] . . you must survey a period of much wider span Not to do so is the hall mark of dilletantism (p 38)

The problem may be seen clearly by pointing to two panel studies of voting conducted in small cities, *The People's Choice* and the Elmira study. One was conducted in a preponderantly Democratic and the other in an overwhelmingly Republican city These studies yield little insight into why the same type of people vote Democratic in Sandusky and Republican in Elmira. Clearly the answer to such problems lies in part, at least, in a historical analysis of the conditions which lead different communities or regions to acquire a "traditional" attachment to one party. Social psychologists and sociologists may, however, contribute much to an understanding of the factors which sustain such persistencies in area voting as well as of the conditions that make for change.

Long-term continuities in allegiance (Key, 1949; Fletcher and Fletcher, 1936-37; Goguel, 1951) to political groups in spite of changes in the issues or in the definition of the role of parties call for specification of conditions underlying consistency or variation. In analyzing these factors, we would like to suggest a simple typology based on the relationship between social structure and political parties. Over long periods of time, either the social structure of an area or the social position of a group may remain constant or change, or the political meaning of a party in relation to a group may vary or remain stable Change or stability must, of course, be understood in an approximate or relative sense. The possible relationships between social structure and party behavior may be summarily presented as in Table 16.

The two dimensions of this typology are based on the assumption of the earlier sections of this paper that normally there is correspondence between the social position and the political behavior of individuals, groups, and areas. The word "correspondence" rather than "determination" or "causal relationship" is deliberately used to avoid the implication that a one-way relationship exists. In some situations, politics may reinforce the institutions and sentiments attached to a given social structure which might otherwise lose their saliency. Without a typology of this kind, the analysis of continuity and change becomes confused. For example, the continued long-term allegiance of a lower-class ethnic group to the Democratic Party may, on the surface, appear the same as the support given to the Republican Party since the Civil War by the poor hill or mountain farmers of parts of the South (Key, 1949; Heard, 1952). The first example, however, represents a case of continuities in which a lower-class group continues to support the party of the "underdog" The Southern Republican example, however, seems to be an outdated loyalty, for the poor mountain farmers originally supported the Republicans as the more left party and continue to support it after it has become the conservative party. It is obvious that the problems presented by these two types of consistencies are vastly different.

Basically, the interesting but as yet unanalyzed aspects of these relationships occur in the third and fourth types in the paradigm. That is, we assume that adherence to a party when there is a consistent relationship between the position of a group and that of a party does not need explanation. On the other hand, when a subgroup continues to support a party after the party has changed its program or the subgroup has changed its position in the social structure, the situation does need analysis. We want to know what are the conditions that perpetuate continuity in spite of a strain between group needs and party position and, on the other hand, under what conditions such a strain does result in a change from one party to another.

Any analysis of a set of social relationships requires interpretation on two levels — the historical and the functional. It is necessary to specify both the specific historical conditions and events that gave rise to the development of a given social pattern such as party allegiance, but it is equally important to analyze the currently operating factors which support and

TABLE 16

POSSIBLE RELATIONSHIPS BETWEEN SOCIAL STRUCTURE AND PARTY BEHAVIOR

	Social structure	Party programmatic behavior
Consistency — high probability of vote stability	+	+
Congruent changes — high probability of vote stability	−	−
Strain I	+	−
Strain II	−	+

maintain it as a going system. This distinction between historical determinants and current functional supporting mechanisms is largely arbitrary — some of the former may still appear to be operative, and some of the latter are consequences of the unique historical situation.

In attempting to suggest some of the factors underlying the continuance of "nonlogical" political loyalties which persist in spite of strain, we shall discuss together both the case in which the party changes but the position of the group remains the same and the case in which the group changes its position while the party remains in the same position in the political spectrum. It is probable that some of the mechanisms supporting each type are different, but as yet there is little or no empirical work on this problem, and what exists does not differentiate between the types.

We might mention, for example, that continuity in allegiance in spite of a change in the social structure of an area often may simply represent a "political lag" related to the failure of the traditional opposition party to realize that the political potential of the area has changed. For example, in 1948, the New Hampshire Democrats complained that no major Democratic campaigner entered the state and that little money was given to them for organizational purposes. This occurred in spite of the fact that New Hampshire is now one of the most industrial states in the Union, and also has a large Catholic population.

The functional mechanisms that operate to sustain a given political pattern may in turn be arbitrarily divided into two categories — structural and psychological. Factors operating on the structural level are the legitimacy of the political system, the tie between political parties and other structures and groups in the community, and the dynamics of the American primary system. The strength of the party machinery often will prevent the entrance of a new party in an area (Lenoble, 1950; Decouty, 1950). On the psychological level, factors such as the transmission of past attitudes — "collective memories" — the ambiguousness of political perceptions, and factors affecting the extent of political apathy may be cited The distinction between structural and psychological factors is not meant to be taken as more than a heuristic device to differentiate interpretations which put relatively more emphasis on groups or on individuals, respectively.

CONTINUITY

Structural factors. Underlying many seemingly "nonlogical" continuities is the fact that the dominant political party in a given area becomes recognized as the only legitimate, socially approved vehicle for political action. A past relationship with alternative forms of political action has often led to that alternative's being defined as illegitimate or as threatening to the integration of the community. Thus, in some areas the Republican Party or the Democratic Party was originally the party of a military enemy. Catholics in France will remember that leftist parties originally were violent opponents of Catholicism. To support an opposition party meant being identified as an enemy of the community, and led to sanctions (Siegfried, 1949). With the passing of time the original basis for rejecting alternative forms of political action may disappear, and adherence to the traditional party may become "nonlogical." If the challenge to the logical basis of support of a party develops only after a number of generations during which a group or area has supported one party, change in political allegiance becomes extremely difficult The now traditional political system becomes so intertwined with other institutional structures that to change it often involves the need to change the other structures as well.

The interrelationship of the one party with all other legitimate segments of the social structure requires a minority party supporter to accept the role of social deviant. Alexander Heard (1952) reports that in small towns and cities in the South many businessmen who openly became Republicans were socially ostracized and financially ruined. He also reports that in Southern counties, any person with serious political ambitions can normally hope to achieve them only if he operates within the legitimate one-party political structure. This assures a monopoly of talent for the dominant party.

In such a situation, a self-perpetuating political cycle develops in which the existence of a legitimate monopolistic political structure forces people into operating within the framework of the structure to achieve reforms, and the fact that they operate within the structure means that it will not be basically threatened.

The community definition of a certain means of political action as the only legitimate expression also limits the frame of reference within which politics may be presented. The elder Senator LaFollette pointed this out, when explaining why he did not break with the Republican Party, by saying, "People will listen to me because I am a Republican" (Doan, 1947). In North Dakota, the socialist founder of the Non-Partisan League, A. C. Townley, made the

conscious decision to enter the Republican Party because he recognized that the farmers of the state would entertain politics only under the Republican label (Gaston, 1940; Bruce, 1921). An opposition leadership working within the dominant party may help to maintain the traditional party allegiance by giving it a new content, and so may help perpetuate its legitimacy.

In any given area, political systems may be related to the integration of ethnic, religious, caste, or regional economic systems Their perpetuation may seem to be contradictory to one seeming functional need, that of economic class, but is of major relevance to others. For example, one party may be viewed as the party of the immigrant Catholics, while the other is the party of the Anglo-Saxons In Massachusetts, for example, it has been almost impossible for a person of Irish or Jewish extraction to achieve position in the Republican Party. Men are kept within parties by the fact that shifting over to the other party involves joining an ethnic or religious group which is defined by their own group as an enemy The traditional left-right cleavage in France has been related to religious belief Secular, anticlerical, or Protestant conservative businessmen will not vote for a clerical conservative party, and religious radical Catholics will not vote for a radical antireligious party. The irrationality, defined on economic interest or liberal-conservative lines, may actually be an expression of the greater saliency to a group and its members of other values or tensions (Siegfried, 1949).

A somewhat similar factor related to such continuities is the cleavage between geographical areas or rural and urban divisions. In many states, the metropolis and the rest of the state are found in opposite parties. Much of internal state politics involves a cleavage between the big cities and the rest of the state. This local interest cleavage may establish a frame of reference which places a restraint on the imposition of national issues as sources of division (Gosnell, 1942).

The primary system in the United States has facilitated the maintenance of continuities. It has made it possible for liberals to operate within the Republican Party in northern and western states, and for conservatives to remain within the party in southern states. In this connection it may be mentioned that many of the apparent deviations from the image of the Republicans as conservatives and of the Democrats as liberals come from one-party states. In recent years, for example, liberals, elected as Republicans, are almost exclusively from one-party states: Morse, Oregon; Tobey, New Hampshire, Aiken, Vermont, Smith, Maine. On the other hand, almost all the basically conservative Democrats are from the South. In these one-party states, the conflict between liberals and conservatives occurs within the dominant party rather than between the two parties.

The primary system may permit new strains introduced by changes in social structure to be reflected within the old dominant party rather than through support of the opposition party. The commitment to factional politics within a party then helps carry the national ticket. We know nothing, however, about how individual voters reconcile the strains of voting for a radical faction in the primaries and then voting for a conservative party in the national elections, as occurred in North Dakota.

Psychological factors. Much of the discussion of continuities seems to assume that traditional loyalties and feelings dating back to an earlier situation still exist For example, it is suggested as an explanation of their Republican loyalty that the inhabitants of Southern hill counties still resent and remember the way their fathers or grandfathers were treated by the Confederacy (Key, 1949, Heard, 1952). Without empirical evidence concerning contemporary attitudes, these assumptions may be questioned.

On the individual level, Kurt Lewin (1951) has pointed out that "it is important to realize that the psychological past and the psychological future are simultaneous parts of the psychological field existing at a given time" (p. 54). The psychological past of an individual must be seen as being shared with the groups to which he belongs. As Halbwachs (1950) suggested, groups may have a "collective memory" which is transmitted to its youth. This transmission probably is modified by a process of selection to present needs, but its operation in politics is often assumed, and never studied. Since regional or group attitudes seem to persist in one place and change sharply in others, it is difficult to make any imputations about them as a determinant of political consistencies.

A sharp break in a traditional continuity by a subgroup can occur only when some experience is perceived as clearly affecting their interests and requiring a new political orientation. The ambiguousness of democratic politics, especially in the United States, prevents this sharp challenge to an institutionalized voting pattern from occurring often. If we think of the different kinds of elections in the United States, such elections as those of 1936 or 1896 are clearly the exceptions — that is, those elections which present a clear-cut, important policy di-

vision, that is easily understood, and which have major consequences to a large number of voters, are the exception rather than the rule. Both parties in a two-party election seek to appeal to almost every group of voters, and most especially to those who have some tradition of loyalty to the party. Given an ambiguous, complex stimulus without clear alternatives, we know from experience in a number of fields what the voter is likely to do. He falls back on older loyalties and habits which are usually still reinforced by present social relationships or, if these attachments are not clearly formed, he is vulnerable to social influences in his immediate environment. That is, faced with an ambiguous situation in which the consequences of the choice are not clear, voters are likely to act in terms of the tradition transmitted through their group ties, and these are often based on past, more clear-cut situations.

An additional factor that intensifies the effect of the ambiguity, though in part it may flow from it, is the fact that the overwhelming majority of American voters — and, perhaps, voters in most countries — are relatively *indifferent to politics* under *normal* conditions (Hyman and Sheatsley, 1950). For example, most studies have reported that only about 20 to 40 percent of the electorate state that they get worked up over politics, or that they believe they can influence government, or that they take an active part in political discussions. This lack of involvement or concern over political consequences may add to the blurring of political stimuli by voters themselves. Such indifferents are even more likely to react in terms of following the existent group pattern. When vote change occurs, this large — often majority — group will tend to retard the impact of the change, since the political stimuli which determine the change will affect them least. This pattern may be seen in the fact that those Catholics who in the 1940's still voted along the religious cleavage lines of the 1920's rather than along the class lines of the 1940's are least involved or interested in contemporary politics (Berelson *et al.*, 1954).

CHANGE

There is a curious discrepancy between group and individual analysis of electoral and opinion change. When dealing with groups, political scientists and others explain such change as a rational reaction to new situations or factors. For example, Negroes shifted to the Democrats in 1936 because of the benefits the New Deal work-relief program gave them. Many Southern conservatives voted Republican in 1952 as a culmination of their hostility to the economic and race relations program of the New Deal, which threatened their interests. Italians and Germans turned against Roosevelt in 1940 because his foreign policy injured their European homelands (Lubell, 1951). Western grain farmers have supported agrarian radicalism as a reaction to the threats of foreclosure and low prices during depressions. On the individual level, on the other hand, sociologists and social psychologists tend to analyze change in terms of group pressures on the individual or as a response to personal needs, some of which are rational but many of which are latent or unconscious. The German middle class became Nazi as a reaction to prolonged economic insecurity and a resultant threat to their status, but the individual became a Nazi because of personal psychological needs fulfilled by authoritarian ideologies and collective organization.

In this section, we shall limit our discussion of change to the group level. If we now examine the traditional explanations of group change, it is clear that most of them turn out to be specific examples of the third or fourth case in the paradigm presented in the previous section. That is, the explanations of group change invariably state that a party no longer represents the needs of a specific group and the group changes, or that the position or needs of a group have changed, and therefore they change their political allegiance. Given the fact that there are many situations in which these patterns occur but change does not take place, it is clear that these analyses, while a necessary part of any political analysis, are not sufficient. The basic problem of such analysis is to locate the conditions under which change by groups is most likely to occur.

Thus far, the most useful, though in many ways limited, method of group change analysis is the use of trend data. Election data enable the analyst to specify the conditions under which patterns of group change have occurred. On the basis of their scientific use we may distinguish three main types of trend studies of interest here.

Descriptive time series. Fluctuations in political behavior may be charted over time without making any complex inferences concerning the relationship between political trends and other social trends (Duverger, 1951; Moos, 1952). The earliest statistical trend study, made in Britain in 1898, attempted to demonstrate that the periods of Liberal and Conservative dominance in Great Britain fluctuated in a regular sequence which fitted a mathemati-

cal curve (Edgeworth, 1898; Martin, 1906). Some preliminary analyses of international voting trends indicate that periods of left or right dominance occur at about the same time in different countries For example, the periods of socialist gain and loss in Japan since the war have been the same as those which occurred in most European countries. Little more than speculation and *ex post facto* interpretation can be offered today on the determinants of such international trends, and this field of comparative trend analysis remains a fascinating but unexplored field of activity. It does, however, suggest a caveat to those who limit the analysis of political change within given countries to the study of existing domestic conditions at the time of a given election.

Subgroup variations Trends may be charted for the various subgroups in a society to locate those groups which deviate from larger trends. Thus far, the greater part of such research has indicated that most groups are more or less equally affected by larger trends Bean (1940), who has been a leader in these studies, has subsumed the principal finding of such regional studies in the United States under the maxim, "As your state goes so goes the nation." That is, trends toward the Republican or Democratic Party affect all regions of the country more or less equally. Litchfield (1941b) in the United States and Bonham (1953) in Great Britain have demonstrated that similar patterns exist among economic strata in these two countries. In Britain, for example, periods of Tory gain are reflected by a higher working-class Conservative vote, even though the majority still vote Labor, while in periods of Labor supremacy the socialist vote increases even among wealthy Britons.

While most groups in most elections do react in similar fashion, these trend studies have pointed out that certain strata or areas are more resistant than others Bean (1948), for example, has shown that certain states fluctuate more than others. Study of ethnic voting patterns has indicated that Negroes are more resistant to national trends than are whites (Litchfield, 1941b; Harris, 1954). In 1932, they were less likely than whites to switch to the Democrats, while in 1952 there was very little shift to the Republicans (Myrdal, 1944; Moon, 1948). Bonham (1953) points out that English workers of the lower stratum have *not* moved back to the Tories since 1945, although every other group, including skilled workers, has done so. Litchfield (1941b) has somewhat similar findings for Detroit from 1930-1938. By indicating the areas or groups of greater shift or stability, the trend analyst locates for the sociologist or social psychologist those groups in the population that are seemingly most integrated or isolated from the factors which determine electoral change and thereby makes possible more intensive research on the factors affecting stability and change.

Covariate trends. The most complex use of trend data involves relating political trends to other social and economic trends, such as economic conditions, wages (Duverger, 1951), urbanization, international events (Brix and Hansen, 1948), and so forth. Many of the first students of political trends were economists, who noted an apparent relationship between economic trends and political change. Bean (1940, 1950), Pearson and Myers (1948), Clark (1943), Rice (1928), and Tibbitts (1931) in America and Akerman (1946, 1947a,b) in Europe found that shifts in administration were related to downswings in the business cycle.

The basic problem of large-scale change analysis may be broken down into two separate questions. (1) What are the factors that account for the repetitive swings between the left and the right? and (2) under what conditions do groups change more than anticipated or, conversely, resist change? Some hypotheses may be advanced to deal with each question. These are, however, suggested only as an indication of the type of work needed in this field.

It may be suggested that left or reform government initiates a self-destroying process by further integrating depressed groups into the national structure. By granting the demands of have-not groups, reform movements may shift them into the conservative ranks. This thesis has been argued to explain the ebb and flow of agrarian radicalism. Lipset (1950) says:

> New Zealand farmers supported the guaranteed price policy of the Labor Party in the depths of the depression in 1935, when low prices threatened their security. When the depression ended, however, the rural districts turned against Labor's planning program, which called for maximum prices as well as minimum ones, and increased incomes of the poorer groups. In the United States, President Roosevelt established the guaranteed parity prices and crop insurance demanded by organized farmers. In so doing, however, he lost the support of the rural areas, including the once-radical wheat belt. In Russia the Bolsheviks lost the support of the peasants after they gave them title to the land. (p. 229)

The fact that Negroes in the United States and the poorer workers in Great Britain have of late proved resistant to conservative trends in a period of great prosperity may be an indica-

tion of the fact that the improvement in their position has not been enough to change their perception of the situation and that they remain dissatisfied.

Conservatives similarly may be subject to inherent instability of support because of their resistance to enacting needed changes. Basically, we would posit that power in a democracy is self-destructive in that politicians in office must necessarily alienate support in deciding among conflicting interests. Over a period of time the accumulation of such grievances may show up in the slow ebb of popular support.

The social psychologist and the pollsters may contribute greatly to our understanding of this and other presumed underlying pressures by studying public reaction to government policies and parties over long periods of time. Only when we relate trend to data on people's reactions to the events of the time can we really begin to understand the processes involved in political and other trends As Kuznets (1934) has pointed out, "the computation of many trend lines, seasonal indices, and cyclical curves does not permit the formulation of generally valid relationships unless the purely statistical generalization has been buttressed by knowledge of social phenomena derived from other sources" (p 635).

The fact discussed earlier, that most shifts by groups from one party to another occur as reactions to a *rational* strain in which the interests or social position of a group and the program of its traditional party are at variance, leads to another proposition The more salient and clear-cut the issue, the more likely that a group will react in terms of its defined interests Thus Negroes shifted to the Democrats after it became clear that the policies of the New Deal were much more beneficial to them than were those of the Republicans. Race relations as an issue to Negroes is both salient and less ambiguously defined than most issues affecting other groups in the society. Empirically, however, little content has been put into the concepts of saliency or ambiguity of issues as factors making for change. Why for one group and not another? Why one crisis and not the next? Here, again, we need a considerable amount of research on the way different groups perceive political issues and parties.

Duverger (1951), among others, has suggested that the psychology of wasting one's vote prevents the rise of new parties in countries that elect governing bodies through a plurality system in which the leading candidate is elected and the minority is unrepresented Proportional representation, on the other hand, facilitates the rise of new movements (Duverger *et al*, 1950, Hermens, 1940, 1951). The psychological processes underlying different election systems should prove to be a fruitful area for study in attempting to account for the varying propensities of different countries to react to broad new political movements.

The major conclusion regarding systematic efforts to account for changes by large groups is that, thus far, the political scientist and the sociologist have been unsuccessful in making many fruitful suggestions (Bendix, 1953). This deficiency is in part a result of the complexity of the problem. It cannot be dismissed, however, on this ground, for there have in fact been few attempts, outside of trend studies, even to deal with the problem. The area has largely been left to the historian, who is primarily concerned with explaining the single case and who is rarely if ever oriented to the need to set up testable hypotheses.

This paper started with the interpretation of cross-sectional, static voting statistics. It then moved to short-term changes, from there to developments occurring during the life cycle, and ended with the problem of how to take into account long-term historical contexts. At each point the intertwining of psychological variables and broader sociological structures was stressed. In this way the study of the voting decision becomes a paradigm for the central task of the social psychologist· to locate individual behavior in the stream of social trends.

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